WESTERN STATES EDITION

# DOMESTIC ENGINEERING

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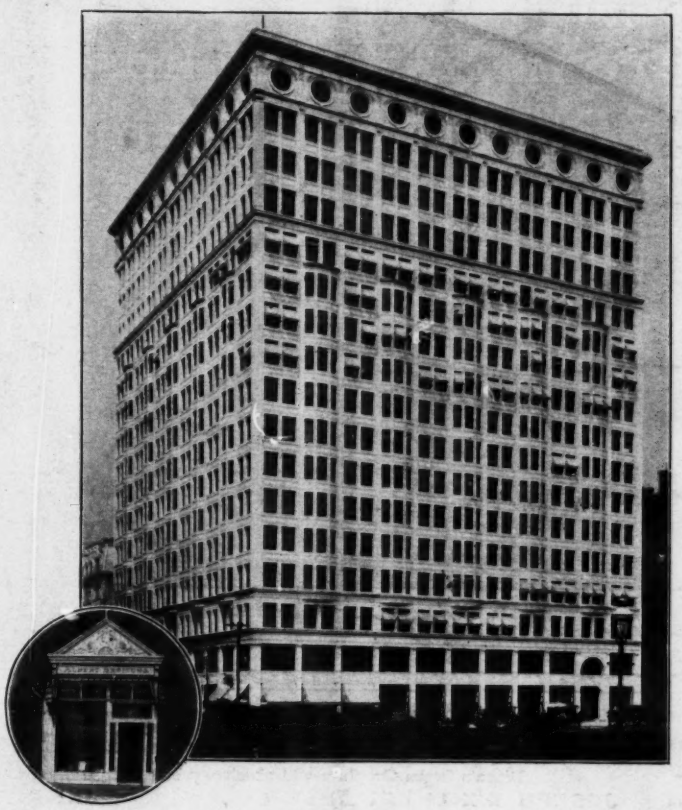

THE LARGEST AND SMALLEST BUILDINGS ON MICHIGAN AVENUE, CHICAGO.

The "Railway Exchange", warmed by about 52,000 square feet of AMERICAN Radiation,—mostly "Perfection" pattern, 26 inch goods,—installed by George E. Dixon & Co., of Chicago; D. H. Burnham & Co., Architects. The small building (No. 186) is owned by B. H. Barber and is warmed by about 50 feet of "Ideal" radiation.

**AMERICAN RADIATOR COMPANY**

General Offices, 282-284 Michigan Avenue, Chicago.

See Page 27 for addresses of Sales Branches.

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GLAUBER BRASS MFG. CO., CLEVELAND, O.

Plumbing and Water Works Goods

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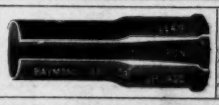

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**Bremen** **Eclipse**
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DIRECT DIRECT-INDIRECT INDIRECT WINDOW
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WRITE US FOR DESCRIPTIVE MATTER AND PRICES.

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## "Graphite as a Lubricant"

Dixon's Flake Graphite will absolutely end your friction troubles.

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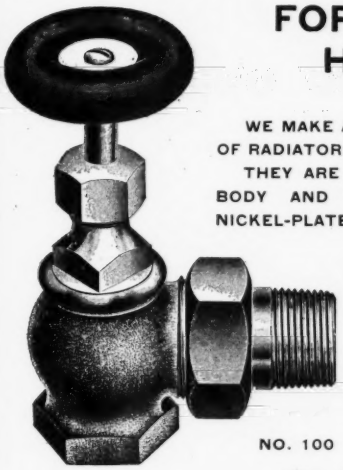
STEAM
WATER

## Ross Valve Co.

TROY, N. Y.

# CRANE RADIATOR VALVES

## FOR STEAM AND HOT WATER



WE MAKE AND CARRY IN STOCK A FULL LINE OF RADIATOR VALVES OF ALL DESCRIPTIONS.

THEY ARE MADE WITH ROUGH BODY, ROUGH BODY AND NICKEL-PLATED TRIMMINGS, AND NICKEL-PLATED ALL OVER.

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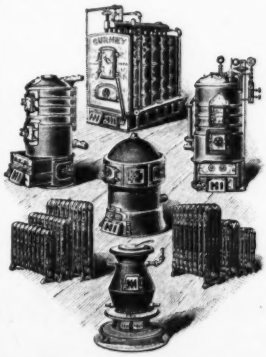
## HOT WATER HEATERS, STEAM BOILERS, RADIATORS



NO MATTER which style or size "GURNEY" a customer selects, he is buond to secure the maximum efficiency, greatest durability and largest possible saving in fnel, thus insuring **absolute satisfaction.**

One of the pleasant features is that these important points are secured at no additional cost over the ordinary kinds of heaters.

Write us now about the local agency.

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## SOLDERING NIPPLES AND UNIONS

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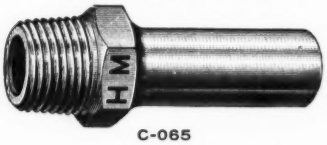
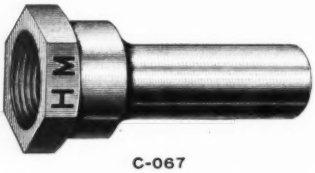


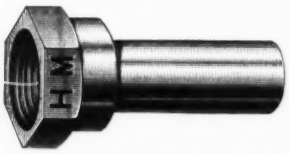

C-065

### FEMALE NIPPLE




C-067

### SOLDERING UNION




C-071

If a soldering nipple or union has the waterway cast to one side, the cutting of the threads on the end may weaken the side having the least metal.

Mueller Soldering Nipples and Unions have the cores carefully and accurately set, and the waterway is exactly in the center of the casting. The operation of cutting the threads does not weaken the casting at any point of the circle.

Mueller Soldering Nipples and Unions are made in all standard sizes, and in either straight or bent pattern. The nipples and union illustrated here are the straight pattern.

Each nipple and union is carefully inspected, is given a hydraulic test as near like actual service use as possible, bears the Mueller trade mark and is *unconditionally guaranteed.*

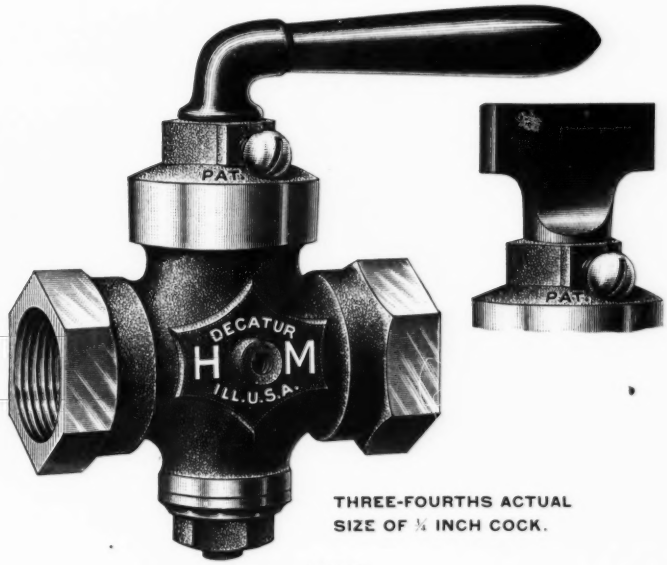
We also make a full line ground key work, compression work, fuller work and plumbers' tools. Catalogues upon application.

MUELLER SOLDERING NIPPLES AND UNIONS ARE ON EXHIBIT IN THE PALACE OF MANUFACTURES, WORLD'S FAIR.

**H. MUELLER MFG. CO., Decatur, Ill., U.S.A.**

# MUELLER GROUND KEY WORK

## NO. 49 STOP AND WASTE COCK




THREE-FOURTHS ACTUAL SIZE OF ¾ INCH COCK.

C-139

Any variation in the taper of the plug chamber from that of the plug in a stop cock will cause the plug to work loose and the cock to leak.

Mueller Stop Cocks have the tapers carefully and uniformly machined to certain gauge and the plug and chamber fit perfectly.

Mueller Stop Cocks are made in brass handle, socket head and patent cap patterns and in all styles of pipe connection. The cock illustrated is the patent cap pattern, iron pipe style.

Each cock is carefully inspected and assembled, is given a hydraulic test as near like actual service use as possible, bears the Mueller trade mark and is *unconditionally guaranteed.*

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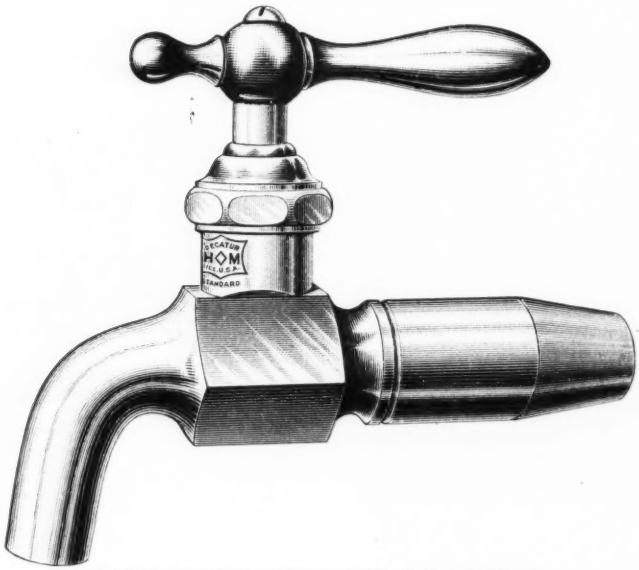
# MUELLER FULLER WORK

## STANDARD GRADE BIBB




THREE-FOURTHS ACTUAL SIZE OF ½ INCH BIBB.

In some fuller bibbs the ball wears out at the seat end soon after the bibb has been placed, on account of its having been cut by a rough or narrow seat.

The ball seat in Mueller Fuller Bibbs is so shaped that the ball is seated on an even surface. The bearing is of such width, and the seat is curved in such a way that cutting cannot occur.

Mueller Fuller Bibbs are made made in plain pattern or for hose connection, and with tail piece for all styles of pipe connection. The bibb illustrated is the plain pattern with lead pipe tail piece.

Each bibb is carefully inspected and assembled, is given a hydraulic test as near like actual service use as possible, bears the Mueller trade mark and is ***unconditionally guaranteed.***

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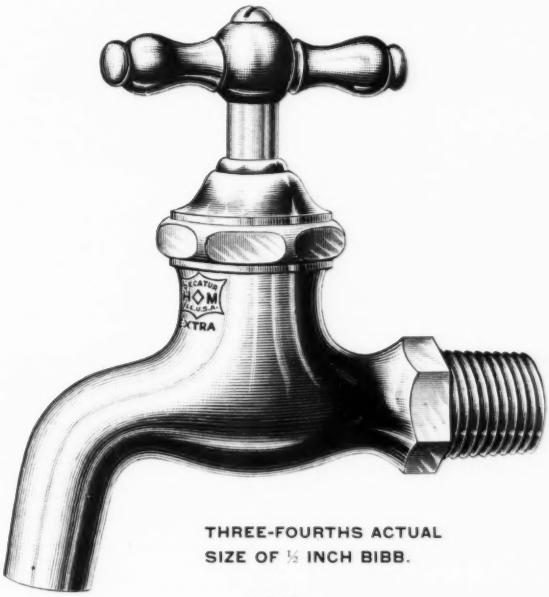
# MUELLER COMPRESSION WORK

## EXTRA GRADE BIBB




THREE-FOURTHS ACTUAL SIZE OF ½ INCH BIBB.

C-233

The stem packing in most compression bibbs is either cork or felt, and as neither of these will admit of lubricating they can not be compressed to make a tight joint without binding the stem.

The stem packing in Mueller Compression Bibbs is a composition of rubber and cloth and will permanently hold a lubricant. It can be compressed to a tight joint without gripping the stem in the least.

Mueller Compression Work is made in three grades, Standard, Extra and Special, in plain or hose pattern and all pipe connection styles. The bibb illustrated is the Extra grade, plain pattern and iron pipe style.

Each bibb is carefully inspected and assembled, is given a hydraulic test as near like actual service use as possible, bears the Mueller trade mark and is *unconditionally guaranteed.*

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MUELLER COMPRESSION BIBBS ARE ON EXHIBIT IN THE PALACE OF MANUFACTURER, WORLD'S FAIR

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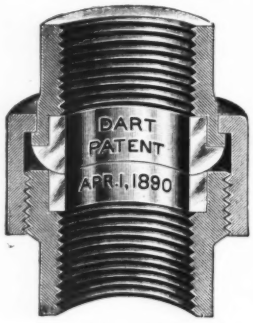
**Strongest and Most Durable Union Made**




It has a bronze ball-ground joint and malleable ends and nuts.

**Adapted for all uses**

The most desirable form of connecting together pipe ends.

**Manufactured by**

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***Robinson & Carey Co., St. Paul, Minn.***
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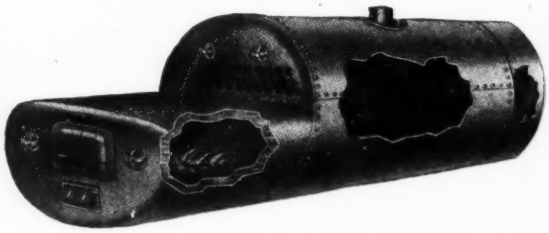
# HALF THE MONEY

usually spent for fuel will be saved by installing our

## "Invincible" or "Eclipse"

**STEEL HEATING BOILERS**



Construction of best flange steel. Internally fired. Easily accessible. No brick work to absorb heat units. No cast iron sections to crack. No joints to be repacked. Complete and ready to set up on leaving our works. Any kind or grade of fuel can be successfully used. No boilers on the market so easily and readily cleaned. All sizes in stock. Prompt deliveries. For catalog, prices, discounts and testimonals, address

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***We also carry a full line of Standard Fire Box and Tubular Boilers. Get our prices.***

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## Kinnear Radiators

Made from sheet Steel, Brass, Bronze or Copper. Electrically finished in great variety of styles to harmonize with room decorations

## KINNEAR RADIATORS

are very light in weight, of *Guaranteed Durability* and are adapted for use wherever steam or hot water heating is specified.

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Eclipse Boiler for Steam.

## THAT

We can furnish the Boiler, Radiators, Steam Goods and Plumbing Material for complete jobs.

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Our Eclipse Boiler has proven a WINNER. Those who have used them before are placing contracts for this season's requirements.

LET US QUOTE YOU.

# The John Davis Company, Chicago, Ill.

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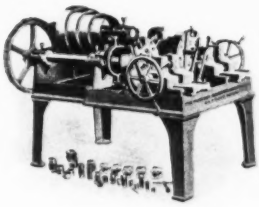
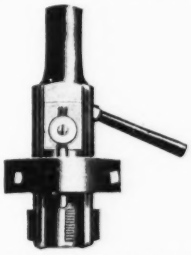
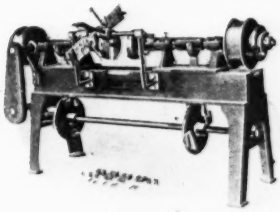


Nipple and Pipe Threading Machine from ½ to 2 inch.



Automatic Collapsing Tap with Reamer.



Special Automatic Nipple Threading Machine.—Pat. 1895.

***Our Nipple and Pipe Threading Machine*** is designed to thread nipples from a close nipple to any length and is constructed with that special object in view. It is the result of a long and practical experience in this class of work. Where any large quantity of pipe is to be threaded this machine will do the work in a fourth of the time and do it better than with the old methods.

***Our Automatic Collapsing Tap with Reamer*** combined is the only one of the kind which has proved a practical and assured success. It will save from 50 to 75 per cent in cost of tapping.

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**The Boynton Furnace Co.'s**

Catalogue, which is complete.

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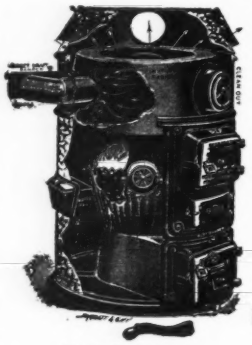

Coal Furnace.

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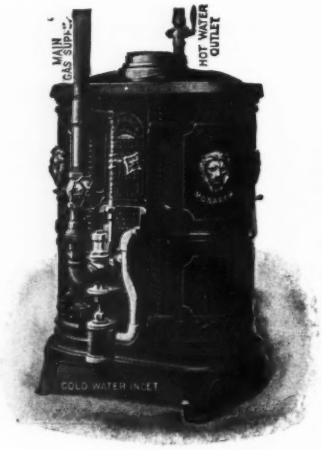


Extent of your client's labor when requiring hot water from the Monarch Automatic Instantaneous Water Heater.

Economical in gas, durable in construction, and reliable in operation.

Fully guaranteed Your inquiry solicited.

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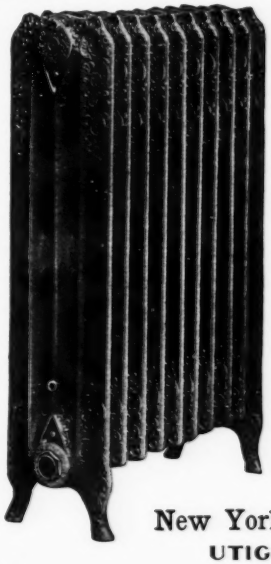
The New York Radiator



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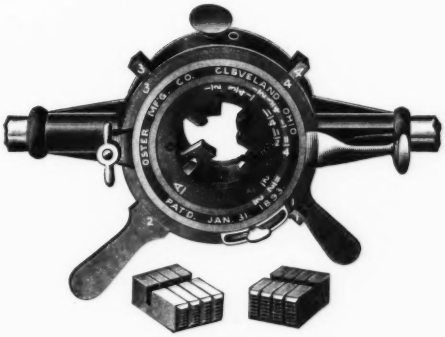

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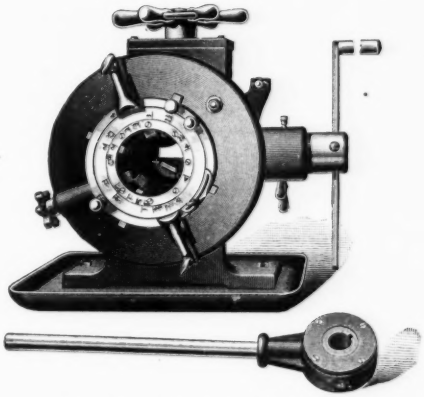
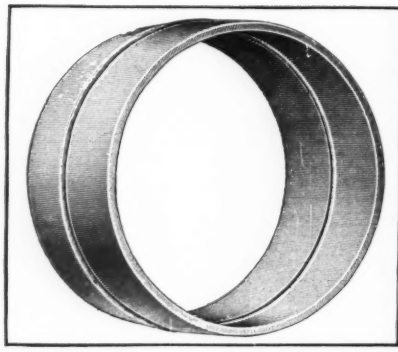


No. 203—1 inch to 4 inch pipe.

THE OSTER MFG. COMPANY

Cleveland, Ohio



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**For Steam and Hot Water Radiators and House Heating Boilers**

These Nipples are Rust-proof; Impervious to the Action of Distilled Water; not affected by Electrolytic Action; are Absolutely True to Size; are Elastic and Adapt Themselves to any Inaccuracies in Boring of Castings. : : : : :

**FREE SAMPLES FURNISHED TO INTERESTED PARTIES**

*Made in All Required Sizes. Correspondence Solicited.*

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Have no equal for high or low pressures. They are the product of carefully selected metal and skillful workmanship. They save trouble and money. Once used, always used.

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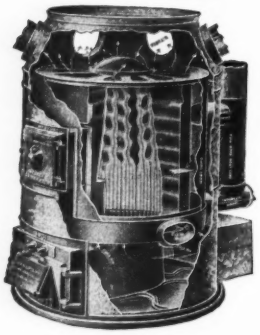

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The Agency is a profitable one and some dealer is sure to get it if not already controlled

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(The Standard High Pressure Steam Pipe Covering.)

Also a full line of Coverings, Asbestos and Wool Felt for high and low pressure steam, hot water, and frost protection. Ammonia and Brine Pipe Coverings, Asbestos Cements, Boiler Laggings and Blocks.

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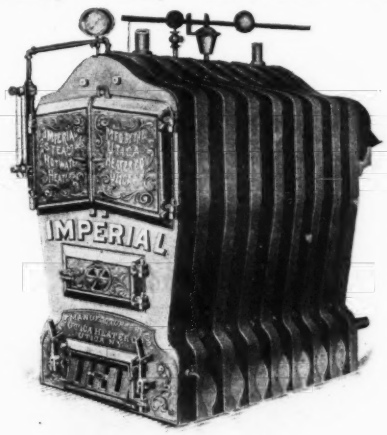


Imperial Sectional Boiler.

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STAND THE TEST OF TIME

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Are honestly made, and honestly Mr. Dealer they give more satisfaction and cost no more than the other kind.

It's your fault if you don't know all about them, our catalog tells you, it's free for the asking. Write for it and get posted on how the "Rapid" is made. You will like the looks of it and the way it works when set up.

**Rapid Heater Co., Limited**

**GRAND RAPIDS, MICH.**

No floor and ceiling plates can take the place of

# Snyder's Ball Bearing Plates

As they are absolutely the best in the world

We are also Manufacturers of

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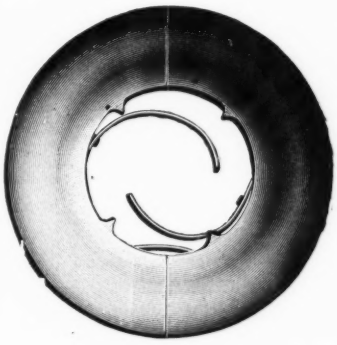
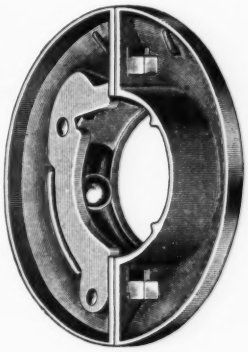


Better plates than these two kinds are not made and lower prices cannot be quoted for such standard articles. We are exclusive makers of ball bearing plates. Why buy substitutes when the genuine article can be obtained easily and is the cheapest in the long run. Send for discounts.



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This valve is made identically the same as our well known "NATIONAL" No. 1 which is giving general satisfaction throughout the country, with the additional feature of having lock and shield, which prevents unauthorized persons from tampering with the adjustment.

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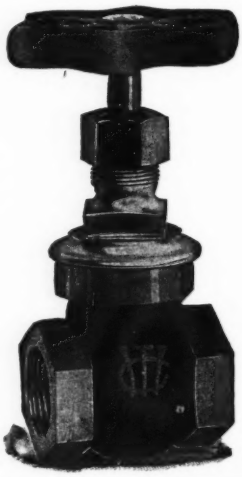
Squares of hubs are cast to body to withstand strains affecting alignment of seats. . . .



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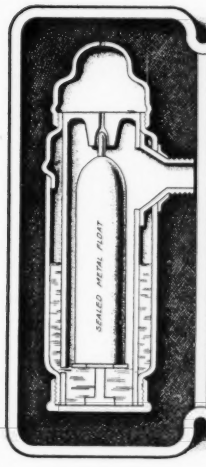


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DONTS:

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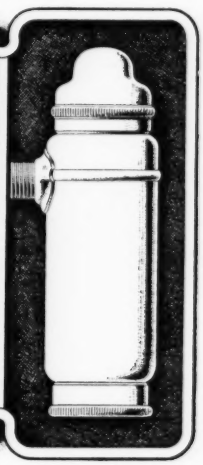

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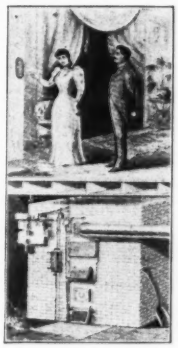

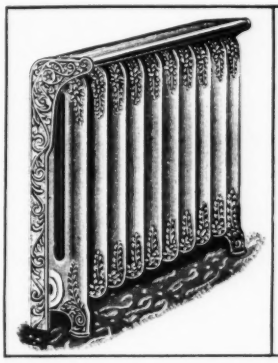

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Made of Sheet Steel. Ends of Cast Iron. Ask for Prices.

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Adapted to any tight boiler. Requires no pump. Dampers controlled by temperature of the vapor in boiler. Air from radiators emitted in basement. No air valves required; this system is perfect. If, however, it is not convenient to run air pipe, good results can be had by using

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# MAHONY BOILERS

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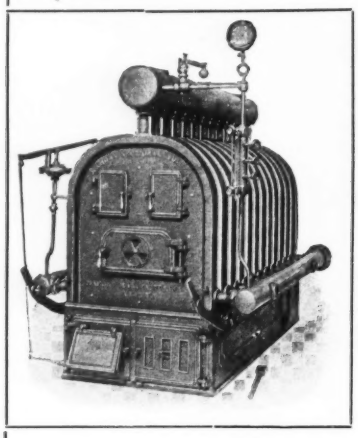

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IT'S YOURS FOR THE ASKING.

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in threading steel pipe try a Q & E die and your troubles will be over with. You can get fully finished threads at a single cut and the threads will be as clean cut as though chased with a single tool. The reason for these things are many but the principal reason is that we use a very high grade of steel in the chaser and then treat it right. If your Supply House doesn't keep our dies, write us and if you're rated, will send you one pre-paid, subject to trial. This trial will give you food for thought. Write for catalogue " P " of Steamfitters' Tools.

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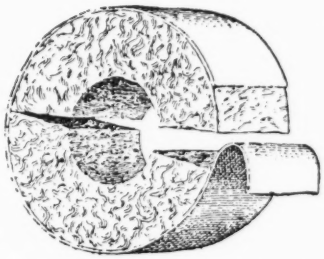
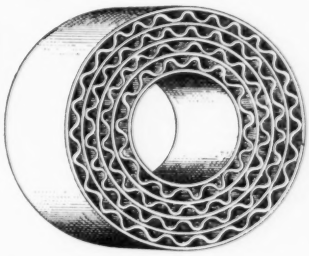


# Yes!



And there are three reasons why the

## Norristown Covering Co.

who manufacture and carry a large stock of

## Steam Pipe and Boiler Covering

are still seen in the pages of DOMESTIC ENGINEERING:

**FIRST:** Because it goes to all the large buyers who use our lines, and to make advertising pay you must advertise in journals that go to the trade that handles the goods you manufacture.

**SECOND:** Because after a very careful test with other leading journals we found that our advertising in DOMESTIC ENGINEERING not only brought inquiries, but orders, and that is what counts in the long run. We look upon advertising as an investment, and not as an expense. It does and should pay a dividend as well as any other department you may have.

**THIRD:** But not the least, we like to be connected with live up-to-date business men and methods, which we all can agree are exhibited in the management of DOMESTIC ENGINEERING, and now that they have made another good move they have our congratulations and best wishes for much success.

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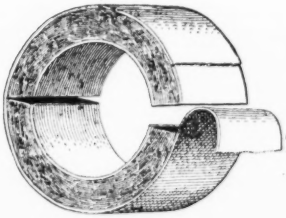

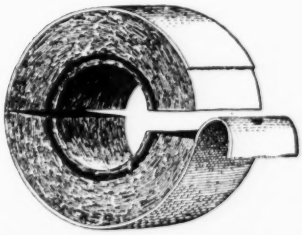

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No. 2, List $24.00. Threads Pipe from 1 inch to 2 inch inclusive.

One man can easily thread any size the tool will cut.
Liberal discounts given.
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**The Toledo Pipe Threading Machine Co.**
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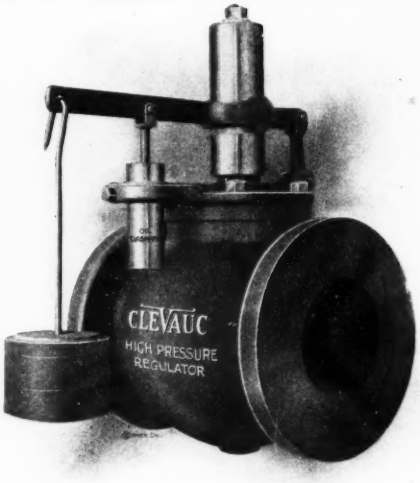


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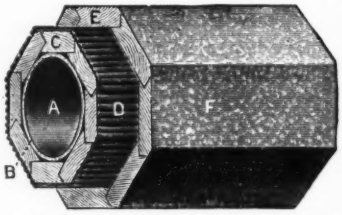
## STEAM PIPE COVERING

**For Insulating Underground and Exposed Pipes. Very Durable. Eliminates Ground Radiation.**

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# Hammering.

Anybody who is troubled with "water-hammer" deserves it. The steam is simply trying to keep him reminded of the fact that with the

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there would be no noise in the pipes, and that the temperature of each room would be under perfect control.

Competent engineers will tell you that the Webster System is the best for all large buildings.

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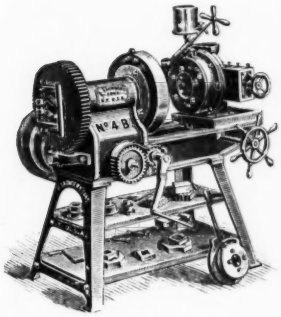


No. 4-B. Pipe Cutting and Threading Machine, ½ in. to 4 in. Hand or Power.

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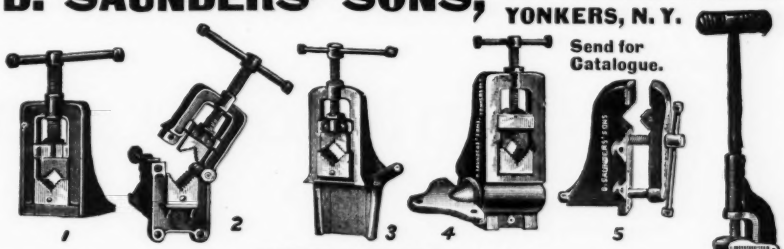


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Holding ⅛ to 8 inch pipe, made of malleable iron, cast iron and steel. Also **Pipe Threading Machines** ¼ to 16 inch; Hand Pipe Cutters, Stocks and Dies, Tapping Machines, etc.

**"B & A" Elbow Valve**

THE BEST VALVE AT ANY PRICE IN ANY MARKET

Strong, Simple, Positive

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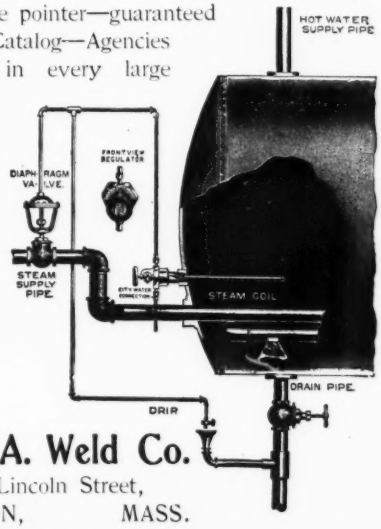
In general use—tested for years—adjustable instantly to any desired temperature—simply move the pointer—guaranteed—Free Catalog—Agencies wanted in every large city—Liberal commissions.

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# United States Radiator Company

DUNKIRK, N. Y.

*House cleaning time has arrived. After you have cleaned your show room see that you have a line of Triton samples on the floor*

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Stocks carried in Warehouses in Jersey City, N. J., and Minneapolis, Minn.

# A PROMINENT MASTER PLUMBER

JOSEPH V. REAGAN, OF PHILADELPHIA

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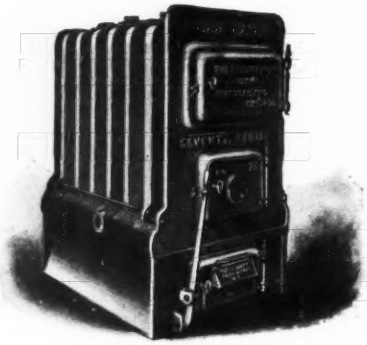

# A MAN

who wants to make money in the heating business should handle the

**"SUNRAY" HEATERS**

They go up easy, stay tight and give the best results. Look over your files and see if you have our catalogue and discount sheet.

**The J. L. Mott Iron Works, Chicago - New York**

# Have You Noticed

How many inquiries you have received lately for prices on

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You would better send for our new catalogue and discounts so as to be prepared to quote prices.

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SAN FRANCISCO: 230 California St. LOS ANGELES: 223 W. Second St. PORTLAND: McKay Building.

Weekly: $1.00 a Year. SATURDAY, JULY 2, 1904. Whole No. 603. Vol. XXVIII. No. 1.

## AN IMPORTANT ANNOUNCEMENT.

It is with pleasure we are able to announce a change in the conduct of Domestic Engineering which we believe will meet with general approval. We have had in mind for several years the enlargement of our weekly edition and the merging of our monthly edition into it. This is the first issue of the paper in its new consolidated form. The unparalleled news service of our weekly will be continued and to it will be added the technical features which have made the monthly so popular, making a weekly which will meet every demand which can be made of a newspaper for the plumbing and heating trades. The subscription price will be $1 a year. To the subscribers who have heretofore received the monthly edition the weekly will now be sent at the same price. The subscriptions of those who have received both the weekly and monthly editions will be extended so that they will receive the enlarged weekly twice the length of time for which they have paid for both editions. We feel this will be satisfactory to all our subscribers, to whose constant loyalty and support we are glad to make due acknowledgment.

We restate our intention to devote the energies of our entire staff to the production of a journal which will be enterprising without being sensational and entertaining without being vulgar. No expense will be spared to produce a journal which will satisfy our clientage. We are grateful for the confidence which has been shown during twenty years of service to the trade and we hope to merit its continuance.

JOHN K. ALLEN,
President.

---

*Next week we shall publish an illustrated article—intensely interesting and throbbing with human sympathy and practical helpfulness—describing an enterprise established by one of this country's largest jobbers and manufacturers of plumbing supplies, for the assistance of invalids and the financially stranded. You should be sure to get the paper and after reading the article pass it on to some one whom you would like to help.*

## A Description of the New Centralized Heat and Power Station, Purdue University, Lafayette, Ind.

By J. D. Hoffman,
Associate Professor of Engineering Design.

The outgrowth at Purdue University of the legislative enactment of one year ago looking toward much needed relief in heat and power for the different buildings, has been realized by the installation of a very complete centralized plant which has just opened up for service. Dean W. F. M. Goss of the engineering department is the designer and superintended the erection of the entire plant.

The peculiar conditions surrounding such a plant in an engineering school, and the completeness with which such conditions are here met comprise a problem and its solution that are worthy of consideration. The requirements for the plant in this university were two-fold; first, to provide heat and light for the various buildings, thirteen in number, located at distances varying from 125 feet to 1,200 feet from the power house site; second, to provide

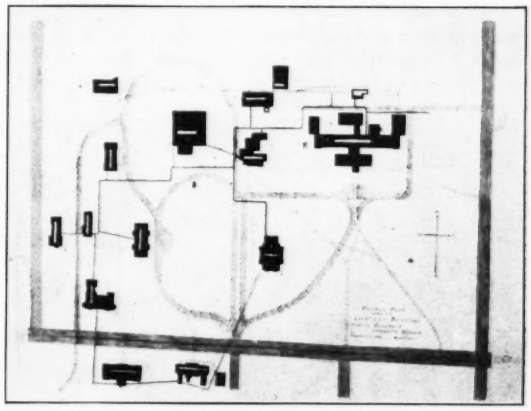

Fig. 1.—Location of Buildings.

a central generating system for those buildings using steam and electricity for power or experimental purposes. In selecting the site for the building the probable growth of the university had to be taken into account so as to have the supply eventually about the center of the field of demand. As will be seen (Fig. 1) by the location of the proposed laboratories for physics and practical mechanics, two buildings to be erected in the near future,

this growth is toward the north and east, a fact that was instrumental in placing the power plant just north of the electrical building. Another point in favor of this location was the fact that it would be on the line of the Purdue railroad which connects between the locomotive laboratory and the Lake Erie and Big Four railroad tracks, a feature of great importance in the delivery of fuel and supplies to and from the plant.

The pipe lines to the several buildings are carried through a large subway or tunnel, shown cross hatched, which branches to the east and south until all the connections to the electrical laboratory and science hall have been taken off, after which the pipes are run in conduits.

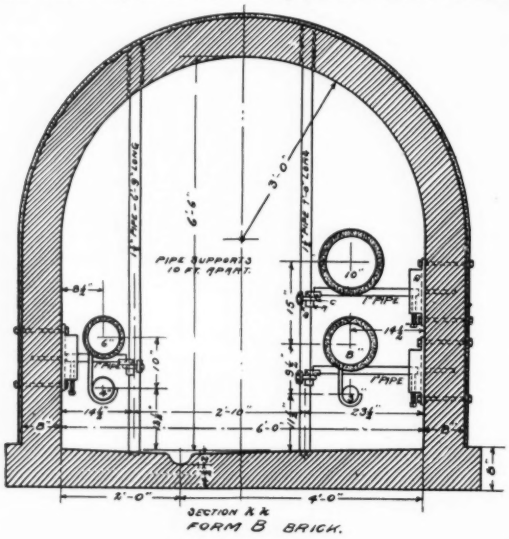


Fig. 2.—Section of Tunnel.

The south conduit which carries one heat and one return main continues a short distance and then subdivides, one branch looking west and supplying eight buildings, the other running to Fowler hall from which point it will prob-

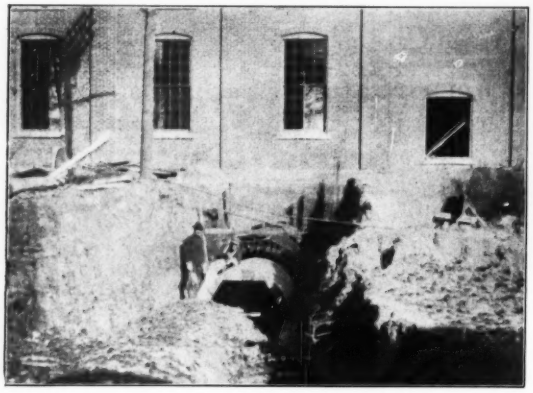

Fig. 3.—Details of Conduit.

ably be connected in the near future to the United States experiment station as shown by the double lines, thus completing the circuit of the entire west branch. This would be a safeguard in case of a break anywhere on the west main compelling a shut-off of all the remaining buildings on that line. The east conduit leading from the tunnel is double and carries two flow mains and one return main. The one main is a high pressure main carrying

Fig. 4.—Interior of 90 degrees turn.

steam as high as 250 pounds pressure to supply the various power and experimental engines, the other and larger main carries the low pressure and exhaust steam from all the engines to the respective buildings, along this branch for heating purposes. The return main carries all the condensation from the various buildings using heat and power back to a receiver located in a pit in the power house. The pipes are graded so the entire return water will flow to the power house by gravity. The pipe sizes

Fig. 5.—Exterior of 90 degrees turn.

shown on the plans are such that more service can be taken on without forcing the system. The present plans provide for 40 to 45 pounds pressure on the west main for heating, with pressure reducing valves at each building. Those buildings connecting with the exhaust main will heat from steam at a pressure slightly above that of the atmosphere.

Fig. 2 shows a section of the tunnel near the power house. It will be noticed that the pipes are supported on

rollers cut from one inch pipe, being held at one end by a cup shaped casting and at the other by a set screw which provides for vertical adjustment without restricting the turning of the roller. The bottom of the tunnel is cemented and thoroughly drained.

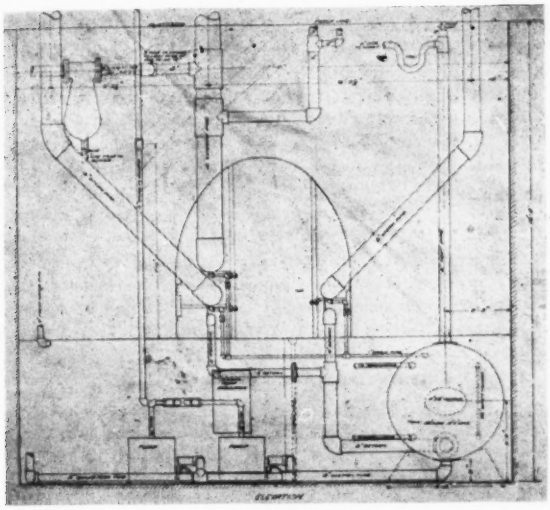

Fig. 6.—Pit in Power House.

Fig. 3 shows the details of the conduit for the single and double lines. Manholes are placed at important points along the line, the construction of one of these being shown by the same figure.

All main lines of piping have flanged fittings throughout so that in case of accident any section can be removed for repairs on short notice. No expansion joints are used,

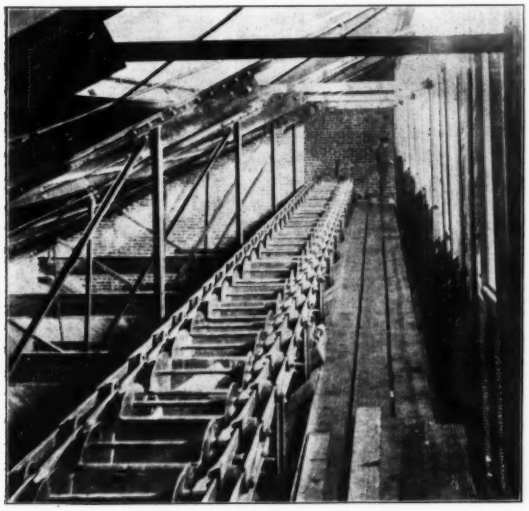

Fig. 8.—The Conveyor.

all expansion being provided for by offsets. All corners are fitted with pipes of a 90 degree long radius bend instead of the ordinary elbow joint. Anchors are placed at proper intervals to make the expansion suitable at the different bends. All pipes are properly protected with magnesia sectional covering and the conduits enclosed with halved tiles cemented in place.

Figures 4 and 5 show interior and exterior views of a 90 degree turn on the east conduit.

All the steam pipes enter the pit in the power house through the main tunnel an elevation of which is shown in Fig. 6. The depth of the pit is such that the receiver

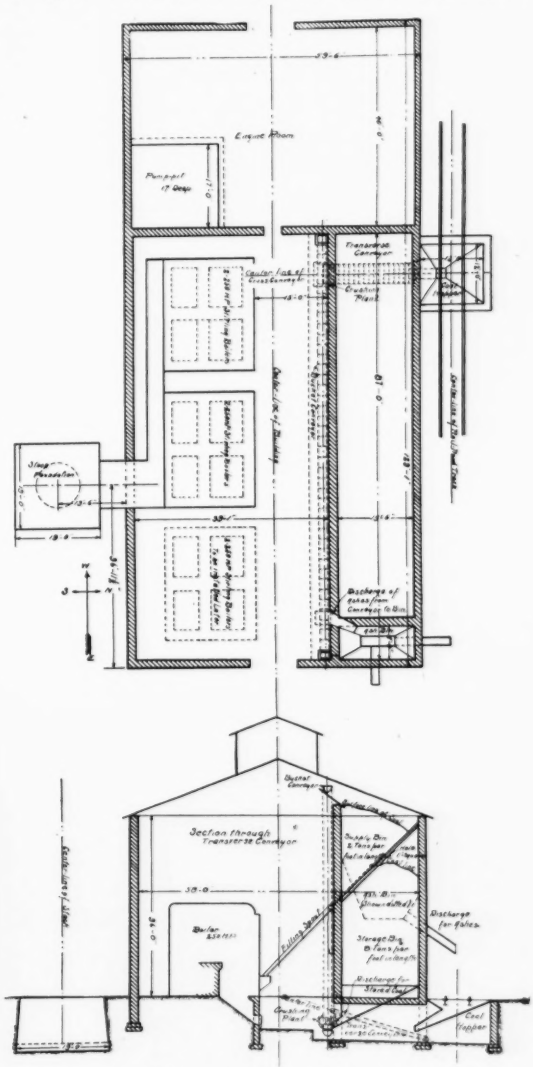

Fig. 7.—Receiving hopper for coal.

attached to the return main is the lowest point in the entire system. All condensation returns to this tank from which point it is pumped back again to the boiler.

The boiler plant consists of two stirling units of 500 horse power each with the foundation prepared for the installation of a third unit of the same size at some later date. These boilers are connected by bent pipes of large radius turns to suitable steam headers so valved and fitted that they may be used independently or combined. The firing is accomplished by means of the Roney mechan-

ical stoker and is supplied with coal through down spouts from the upper coal storage bin. The ashes fall in pits located along the line of the bucket conveyor, Fig. 7, and when occasion demands are dumped into the conveyor and elevated to the ash bin located at the east end of the

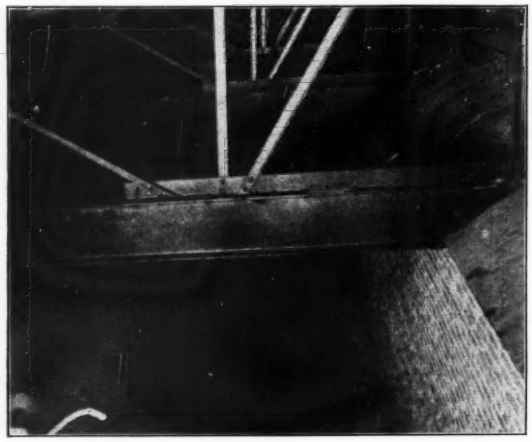

Fig. 9.—Details of Upper Coal Bin.

building and at an elevation the same as that of the upper coal bin. From this bin the ashes can be spouted to a car or to wagons.

Probably no other feature of the plant is more interesting than the conveying machinery just mentioned. Fig. 7 shows the receiving hopper for the coal on the north side of the building located in the line of the railroad. The coal is dumped into this hopper where it is caught by

Fig. 10.—Exterior View of Building.

a cross conveyor and carried to the crusher directly over the lower strand of the bucket conveyor. The coal when crushed falls into the bucket conveyor, is elevated to the roof line and is dumped into the upper coal bin. From this upper bin filling spouts as indicated carry to the stoker. When the upper bin is filled the sliding gate "A" is opened and the coal falls to the main storage bin. The bottom of the main storage bin is built hopper-fashion with spouts properly valved leading to the lower strand of the bucket conveyor. When coal is scarce in the upper bin the coal from the lower bin is spouted to the bucket conveyor and carried to the upper bin for use. The convenience with which the coal can be moved would be found of great value in case of the heating of the coal in the large bin. By continuous handling of the coal it would be given a chance to become cooled. If in an emergency it becomes necessary to remove the coal from the building it can be dumped into the ash bin and from there spouted to the cars.

Fig. 8 shows the conveyor and Fig. 9 the details of the upper coal bin.

The engine room has a cement floor and will eventually be fitted out with the latest improved power machinery.

Fig. 10 shows an exterior view of the building which is 60 feet by 130 feet; also of the stack, which is 9 feet free diameter and 150 feet high.

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*In our issue for July 9 we will publish a very interesting description of a large central station heating plant in which the installation of the system is described, the additional cost of operation as an adjunct to an electric lighting plant fully considered, and the probable profit given.*

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## Systematic Accounting Essential to Success.*

By J. P. Jordan.

Designer of Jordan's System for Plumbers.

At the beginning of this article I want to ask three questions. How many of you who read this are conducting your business on a strictly systematic basis? How many know that you get everything charged in your jobbing department? How many know just what a contract costs you when it is completed?

To these questions many will answer that everything is charged on jobbing, and that the costs of all contracts are known. If this is true, those who know that it is true are running on the right road. But there are many in all lines of business who do not appreciate the necessity of keeping a systematic check on all operations, thinking that they can keep sufficient details in the head to come out always with a profit. This is especially true in the plumbing trade, and to these men I wish to address this article.

No matter how small your business is, if you do contract work it is simply an impossibility to keep the details from one job to another sufficiently in mind to benefit from your experience to any extent. You have a systematic way of installing piping, and must live up to it in order to have proper results from your work. It is just as true that you must live up to systematic methods in the accounting of the details of your business, or you will not accomplish the results you are working for.

You send a man out on a job; you leave it to him to take what material he needs, and to charge what he uses on the job ticket. Now this man is perfectly honest; we take this for granted; but the man is working for himself—for his wages, and his interest is more for himself

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# Minnow and Whale.

The wide scope of warming work by AMERICAN Radiators is shown on front page,—the smallest and the largest buildings on Michigan Avenue, Chicago.

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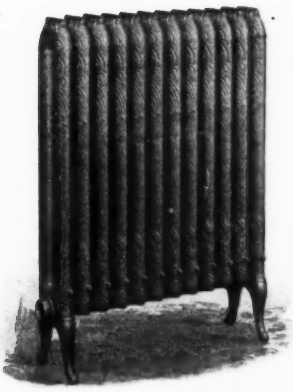

The Perfection, 26 inch, with high legs.

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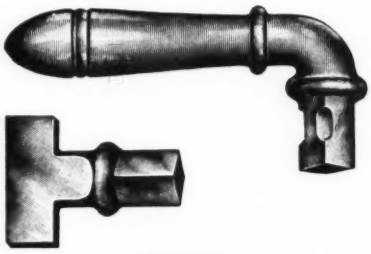

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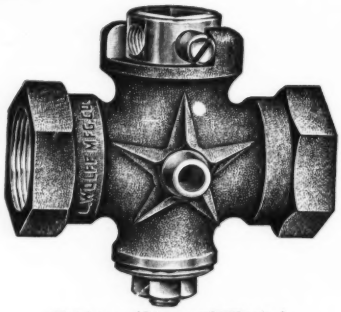
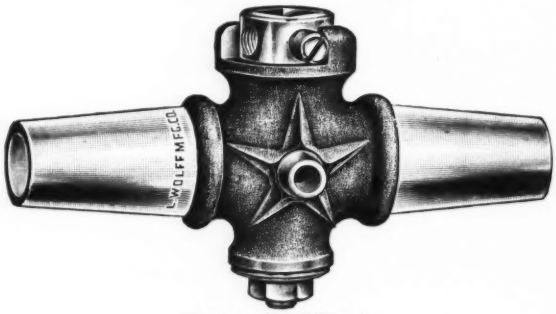



F-3500.—(Stop and Waste.)




F-3502.—(Lead Pipe.)

The above is a new design (Patent applied for) heavy Stop and Waste Cock—not shown in our "F" catalogue—made of absolutely new metal, perfectly ground and of the best workmanship throughout. Write for Illustrated Price List.

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and forgets to charge up some of the small items on a job with the result that there is a loss to the business. The loss on each job is not much to be sure; but the loss in a year's time counts up to quite a large figure. This loss does not occur through any dishonesty on the part of the workman, but through the lack of some systematic way of charging up the material used in jobbing work.

There are many ways of caring for this matter, some far more elaborate than others. But some method should be used to show just what was taken out of the shop, just what was returned, and just what was used on the job. This account should come to the master plumber in such shape that he will be able to judge from the description of the work done, whether the material charged is right or not. There is not one plumber in a hundred whose business is large enough to warrant the employing of a stockkeeper, through whom all material should pass. But at the same time there is not one plumber in a million who is not able to have all of his material properly accounted for by some comprehensive system, provided he furnishes the facilities for such an accounting.

But the master plumber should not think that such a system will run itself and bring him increases of profits without any attention. This is not the intention of systematic methods at all. He must receive the reports, and through study of them, judge whether the work is being prosecuted in the proper manner. He must ferret out the weak points in the work, and see that no needless waste is made. The sole object of detailed accounts of the work is to bring the master into direct contact with it; and when this is accomplished, he is in a position to increase his profits. How else can it be done? You of course hire competent help in whom you place your trust. But even though we grant they are honest, the fact that they do their work in a manner to bring you the greatest profits is by no means established. You, being a master plumber, are supposed to know more about the work than the ones you hire to do it; and you must know what your men do, the methods they employ, what they use, and how much they use in order to properly direct the work. You cannot expect an employe to take the same interest in the work that you take yourself; and for this reason you must insist that all the details are brought to your attention for your approval. In this way, and in no other, can you get the greatest profits from your business.

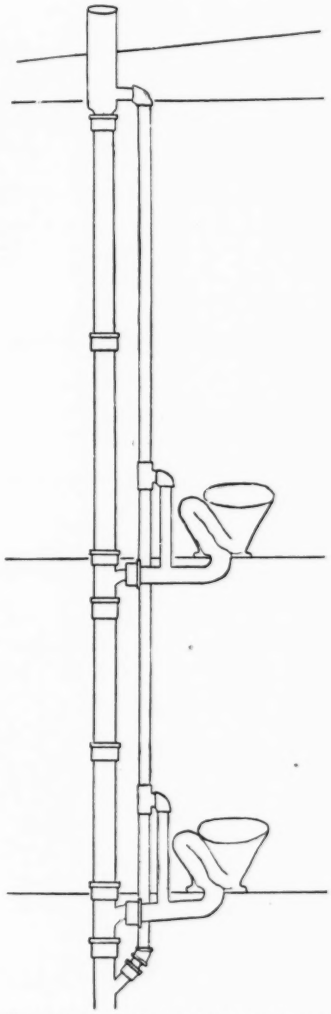
A few years ago the keeping of detailed costs of all manufactured products by manufacturers was little thought of. The value of this knowledge was not appreciated to any degree, and the expense of compiling the details was thought to be waste of money. But today it is different. There is hardly a factory that does not in greater or less detail keep the exact costs of all productions, and more and more elaborate systems are being installed every day to show these costs. Why is it? Because it has been found that the money invested in cost systems has brought as good, if not better, returns than money invested in any other equipment of the factory. Why, then, is it not just as essential for master plumbers to keep detailed records of all operations in their business. Why is it not just as essential to keep the exact cost of each contract, as it is for a manufacturer to keep the exact cost of any article of production. It is just as important, and the sooner the master plumbers find it out, the better for them; as from the comparisons made from the records of different contracts, closer and surer figures can be given on the succeeding ones.

In the next article, I will deal with the question of systematic accounting for plumbers in a more detailed manner.

---

### Suggests Radical Change.

The accompanying sketches are submitted by Thomas Hyde, of Albany, New York, and are designed to show Mr. Hyde's idea of how a plumbing system should be designed and installed to secure perfect sanitation. A glance will show that the method he proposes is a radical departure from present usages. In defense of his position Mr. Hyde has this to say:



Water Closet Connections as required by the Chicago Plumbing Ordinance.

"For many years the greatest ingenuity has been shown in the manufacture of bathroom fixtures with the sole intention of preventing the entrance of sewer gas into the living

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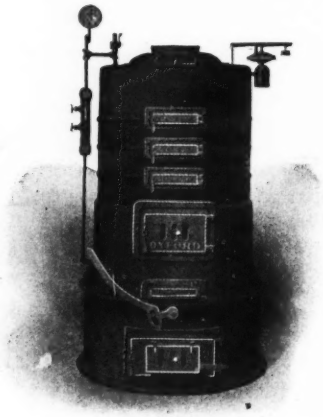


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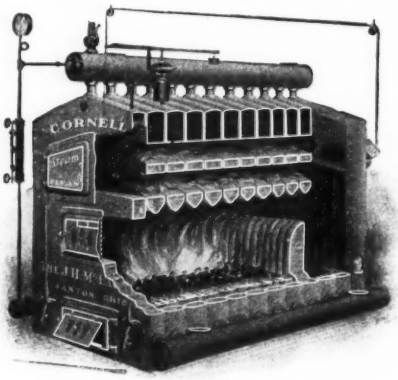



CORNELL STEAM HEATER

WHEN WRITING
MENTION DEPT.
"E"

TOOLS AND SPECIALTIES FOR THE

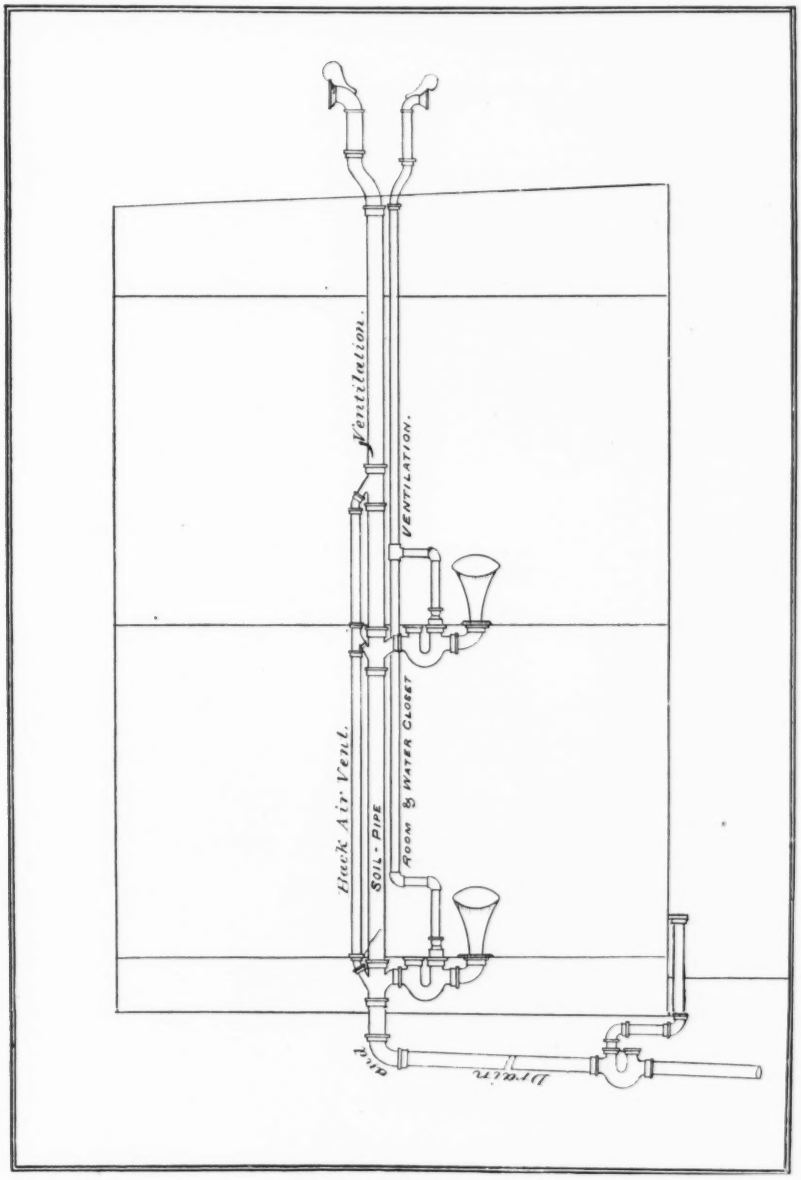
## Heating and Plumbing Trades

apartments of the modern house. To this end, lead calked sewer pipes, ball traps, vented traps, syphon jet closets, mercury vents, and other expensive apparatus have been devised. All this has been done to erect a *trustworthy barrier* between the drain and the living rooms.

"We who are familiar with the history of plumbing must admit that these elaborate contrivances have been helps to an end. They have marked the advance of sanitary science from the crude arrangements of the last generation. As a people we have gradually become educated in such matters; we have come to feel our needs; to realize the importance of the bathroom in the home. As much money is now spent on it as on any other room.

"The error we have made, however, is that we have persuaded ourselves to depend for our safety on some particular *style of fixture*, not on the *entire system*. We point with pride to the highly polished and glittering bathrooms and yet remain in ignorance of the arrangement of the pipes which are under and beyond them. Each new trap or cunningly constructed vent or closet is heralded when introduced as a positive guard against contagion and a barrier to the deadly gas.

"Naturally sewer gas can only enter a room through some opening in that room. These openings are, of course, the closet, the lavatory, the tub or the sink. In ordinary plumbing to prevent the entrance of gas one finds in *each*




Water Closet Connections as Mr. Hyde thinks they should be made.

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GOLD PIN
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EUROPEAN AGENT.
AUG. EGGERS.
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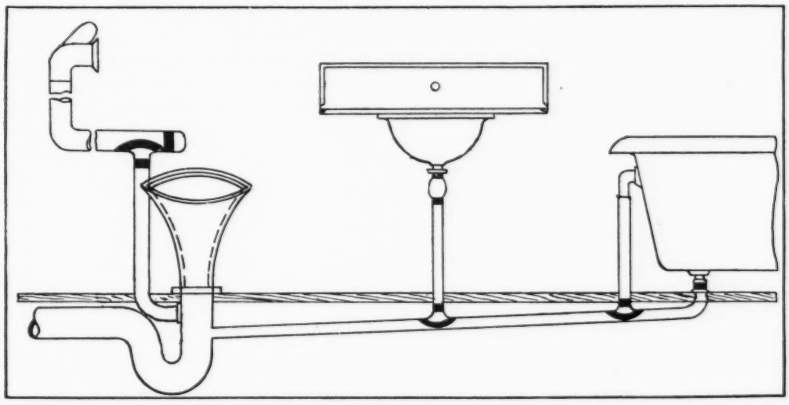
IMPERIAL

*fixture* a trap, which is merely a bend in the *lead, iron or earthenware,* filled with water. *This is all that prevents the backward movement* of the gas from the drain into the room. If this water by any means is syphoned out of the trap or becomes evaporated, what prevents the house from being filled with gas? If this trap has a vent pipe to furnish it air, it is supposed to prevent syphonage; but it cannot prevent evaporation. The ball trap, which leaves this important matter to a metal or rubber ball, is so uncertain a guard that it is now very generally condemned and abandoned.

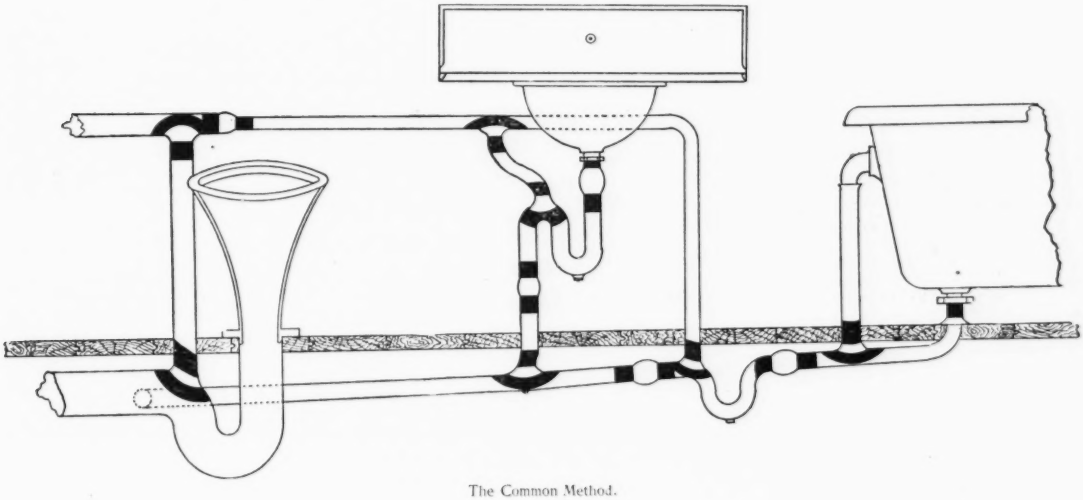
"We have then reached a point in modern plumbing where it is necessary to assert our independence of any fixture, to say: it matters not what style of closet or lavatory, or trap, or vent is used, we must still be protected.

"This is where the system I propose steps in. It depends upon no particular style of apparatus. It goes back of them. Our remedy lies in the drain and the vent. Arrange this system to agree with natural laws, and a *continual flow of air is caused from the bathroom through the closet, the lavatory and other fixtures into the waste pipes and through the soil pipes.* By the very construction of this system no air can ever come into the room from these sources. If no air, then, naturally, no sewer gas. An anemometer test will show a current of air *leaving* the room continually through each fixture bound on its way through the soil pipes. This flow is incessant and can never be changed while natural laws remain the same. At the same time through the house drain and through each individual pipe of the entire system there is established a continual flow of pure air, drying out and purifying those pipes which are usually expected to be hotbeds of filth and contagion."



Mr. Hyde's suggestion for bathroom outfit.

Mr. Hyde invites candid criticisms of the system he proposes. "Let it come red-hot; right off the bat, but let it be honest criticism and not anonymous," he writes. Come on, brothers, let us have your frank opinion.



The Common Method.

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## Wholesale Plumbing

**Declares Initial Dividend.**—The American Sewer Pipe Co. has declared an initial dividend of 75 cents a share.

**New Corporation .**—The Kurka Filtration Co., of New York City, is a new corporation with a capital of $100,000. The directors are W. S. Gordon, Martin Paskus and Martin Geizzler, all of New York.

**To Make Water Purifying Machines.**—New York Water Purifying Co., of Rochester, N. Y., has been incorporated to manufacture purifying machines; capital, $100,000. Incorporators: W. V. Champlin, Chicago; John Bennett and Frank W. Zoller, Rochester.

**To Deal in Plumbing Supplies.**—The Buzzell Mfg. Co. has been organized at Portland, Me., and incorporated under the laws of Maine with a capital stock of $100,000 to deal in plumbing supplies. The incorporators are George F. Williams, Dedham, Mass.; Fred. V. Matthews, president; Eben Winthrop Freeman, treasurer, and M. J. Hession, Portland.

**Trade Golf Tournament.**—One more successful tournament has been enjoyed by the Western Trade Golf Association. Last Friday the event which was looked forward to with a great deal of anticipation by many in the trade —was played at the Glenview Country Club, which had been placed at the disposal of the association by the directors through the kindness of Harry B. Clow. The day was exceedingly warm and a high wind made play somewhat more difficult than this course—perhaps the sportiest in the west—usually commands. Most of the players went out on the St. Paul train at 9:30; some came in an automobile, just touching the high places, and some drove over from Evanston. There were twenty-one starters in the qualifying round, the scores for nine holes being as follows:

| | |
|---|---|
| J. B. Rahm, Ohama | 48 |
| John D. Hibbard, Chicago | 48 |
| John C. Bannister, Kewanee | 48 |
| Sam O. Dugger, Chicago | 49 |
| Harry B. Clow, Chicago | 50 |
| J. P. Dugger, Chicago | 50 |
| Charles K. Foster, Chicago | 51 |
| George F. Hughson, Chicago | 52 |
| M. Clark, Chicago | 54 |
| F. Charles Hill, Chicago | 56 |
| C. L. Williams, Chicago | 56 |
| W. A. Cameron, Chicago | 58 |
| John Duncan, Kewanee | 59 |
| H. E. Pursell, Kewanee | 62 |
| D. C. Chaddock, Chicago | 63 |
| John K. Allen, Chicago | 64 |
| Hugh Whitney, Chicago | 66 |
| H. I. Lord, Chicago | 67 |
| D. E. McCabe, Chicago | 69 |
| J. D. Purdy, Jr., Kewanee | 79 |
| J. W. Story, Chicago | 84 |

An excellent luncheon was enjoyed, and then the serious play began in match play in flights. John C. Bannister beat John D. Hibbard one up in ten holes; Sam O. Dugger played his antagonist of so many tournaments, J. B. Rahm, one up. In the finals Mr. Dugger defeated Mr. Rahm and carried a silver flask away as a token of his undiminished power.

In the second flight J. P. Dugger beat Harry B. Clow one up, and George F. Hughson beat Charles K. Foster one up. In the finals Mr. Hughson beat Mr. J. P. Dugger three up. His prize was a massive oak and silver tankard.

In the third flight M. Clark, who plays wonderfully with one hand, beat Chauncey L. Williams five up with four to play, and W. A. Cameron beat F. C. Hill one up in ten holes. In the finals Mr. Clark beat Mr. Cameron and received a walking stick as a memento of a hard battle.

In the fourth flight John Duncan beat H. E. Pursell four up and three to play, while D. C. Chaddock beat John K. Allen one up. In the finals Mr. Chaddock defeated Mr. Duncan two up, receiving a handsome smoking set as a reward.

In the fifth flight H. I. Lord defeated Hugh Whitney two up and two to play; D. E. McCabe beat J. D. Purdy, Jr. In the finals Mr. Lord defeated Mr. McCabe. Mr. Lord's prize was a large silver corkscrew.

The runners up in the first four flights received scarf pins.

Edward H. Kinney, of George H. Tay Co., of San Francisco, came in a little too late for the qualifying round, but as he made nine holes in forty-five the first flighters escaped punishment by his being unable to join in the semi-finals.

The gallery was made up of a few choice spirits who cheered the players by striking the gaff into those who made particularly poor plays. It included George E. Downe, William H. Hill, C. C. Todd, W. S. Verity and John W. Stockton.

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*We do not fill our reading columns with puffs and write-ups. Our subscribers pay for reading matter and they get it straight. But our advertising pages contain the cream of the trade's offerings and repay study. In writing advertisers please mention Domestic Engineering.*

## Wholesale Heating

**Increasing Facilities.**—The William H. Page Boiler Co., of Norwich, Conn., are increasing their facilities by the erection of a new mounting room and machine shop 135x40 feet, two stories high.

**Report Business Good.**—The E. M. Dart Mfg. Co., of Providence, R. I., report a good volume of business up to date this year, their sales so far having slightly exceeded those of last year.

**Newly Incorporated.**—The Adam's Steel & Wire Works, of Joliet, Ill., has been incorporated with a capital of $50,000. Incorporators are: William J. Adam, Folger Adam and Robert A. Cameron.

**Meet With Success.**—The Ridgeway Foundry Co., of Ridgeway, Pa., has erected a building 40x80 feet for the manufacture of iron, brass and bronze castings. The

company began business on May 1 and has been very prosperous.

**Annual Meeting.**—The United States Cast Iron Pipe and Foundry Co. held its annual meeting in New York City on Wednesday, June 22. The statement of earnings for the year ended May 31 last shows the net earnings to have been $1,107,169.

**Will Make Machinery and Supplies.**—Chicago Steam Appliance and Specialty Company of Chicago, Ill., has been incorporated to manufacture machinery and supplies. Capital stock, $2,500. The incorporators are Walter S. Fletcher, J. A. Schilling and Charles M. Gibson.

**Large Plant Moves to Hyde Park.**—The B. F. Sturtevant Co. announces the removal of its entire plant from Jamaica Plain to its new works at Hyde Park, Mass. Nine acres of floor space are devoted to the manufacture of the Sturtevant products.

**Purchase American Rights for New Air Valve.**—The John Simmons Co., of 110 Centre street, New York City, has been granted the American rights for the new "Tulip" automatic air valve. This is a new device invented and patented by Theodore Robert Wagner, a German, who is now making a short tour of this country.

**Large Plant to Be Sold at Auction.**—The property of the Stilwell-Bierce & Smith-Vaile Co., Dayton, Ohio, is to be offered for sale on the following terms: The old plant, machinery and appliances covered by the $300,000 mortgage bonds to be first offered in bulk; all of the rest of the property to be next offered in bulk, and then the property as an entirety with the good will to be offered next. There will be required a deposit of $10,000 upon bids for the partial offerings and $25,000 upon the entirety.

**Charges Fraud Against Partner.**—At the instigation of the other officers of the Vance Boiler Works, of Geneva, N. Y., E. M. Winnie was placed under arrest but afterwards released on bail, pending the action of the prosecuting attorney, on the charge of the plaintiff, who claims to have discovered that the secretary had diverted the funds of the company to his personal use. An expert accountant is engaged upon the books of the company and until his report is made the exact condition of affairs will not be known. Mr. Winnie claims that he will be able to account for every dollar that has passed through his hands.

**Attorney for Metal Trades Association Assaulted.**—On Friday, June 24, a murderous assault was committed on Attorney Alexander C. Allen, an attorney who brought nearly all injunction suits in Chicago restraining strikers from lawless and criminal violence, and represented many local organizations. He also acted as the counsel of the National Metal Trades Association in several cases, and is the Chicago attorney for the American Anti-Boycott Association. As Mr. Allen stepped out of the elevator on his way home Friday evening, three men assaulted him with iron bars, rendering him unconscious, and his condition is still critical. It is supposed that the murderers really intended to attack Secretary Wuest, of the National Metal Trades Association. Steps have been taken by all the employers' organizations in Chicago to run down not only the perpetrators of the outrage, but the instigators as well, and some sensational developments as to the inciters of the crime are expected. Rewards aggregating $3,000 have been offered for the arrest of the assailants.

**Victory for Pittsburg Valve and Construction Co.**—Judge John D. Shafer, in Common Pleas Court No. 2, at Pittsburg, Pa., on June 22, ordered a decree drawn restraining George E. Klingelhofer from engaging, directly or indirectly, in the foundry, machine, valve and pipe fitting business in the United States east of the Mississippi river, and especially from engaging in such business in connection with the American Foundry and Construction Co. for a period of ten years from October 3, 1903. The order was issued as the result of a suit entered by the Pittsburg Valve and construction Co. against George E., Charles A. and W. L. Kingelhofer. The defendants were interested in one of the companies that formed the Pittsburg Valve Co. George E. Klingelhofer became manager but a dispute arose and he resigned. Later the American Co. was formed of which he was general manager. The Pittsburg company was formed under an agreement that those interested would not engage in a similar business, and under this clause the suit was brought. Judge Shafer finds that George E. Klingelhofer was bound by this agreement, but that Charles A. and W. L. Klingelhofer were not. The bill against the last two was dismissed.

DAY METALLIC MFG. CO.

286 PEARL ST., NEW YORK CITY

*and*

Cor., Jones and 6th Streets,

DETROIT, MICH.

MANUFACTURERS OF

Steel Clad Bath Tubs Steel Enamel Bath Tubs Plumbers' Wood Work and Closet Combinations

## LIGHTING DEPARTMENT

**To Make Gas Appliances.**—The A. G. Kaufman Mfg. Co., of New York, N. Y., has been incorporated with a capital of $25,000 to manufacture gas appliances.

**To Make Lighting Appliances.**—Smith Incandescent Light Co., of Camden, N. J., has been incorporated to manufacture lamps, incandescent lighting appliances, etc.; capital, $200,000. Incorporators: Freeland G. Hobson, John F. Keator, Harper F. Smith.

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**Have Incorporated.**—The Maher Plumbing Co., of Boston, has been incorporated; capital, $2,000. President, Peter L. Murphy; treasurer, William T. Maher.

**Will Operate Heat and Light Plant.**—Canton Steam Heating Company of Canton, Ill., has been incorporated with a capital of $25,000 to operate a heating and lighting plant. The incorporators are James D. Robertson, R. F. Henkle and Thomas Parcell.

## Trade Wants

**WANTED SALESMEN. By a large jobbing house, two or three first-class traveling salesmen familiar with both steam and plumbing lines. Address, giving full details as to age, experience and references, No. 177, care DOMESTIC ENGINEERING, 58-64 N. Jefferson St., Chicago, Ill. 7-23**

WANTED—FIRST-CLASS SALESMAN FOR PLUMBERS', Steam and Gas Fitters' Supplies. Only those thoroughly posted and that come well recommended need apply. Give experience and salary expected. Address Box 482, New Orleans, La. tf

WANTED—A GOOD COMPETENT SALESMAN TO TRAVEL and sell Hot Water and Steam Heaters, also Instantaneous Bath Heaters for Wisconsin and adjacent territory. Address No. 171 care of DOMESTIC ENGINEERING, 64 North Jefferson St., Chicago, Ill. 7-2

WANTED—HEATING ENGINEER EXPERIENCED IN STEAM and hot water heating and ventilation; capable of preparing plans, specifications and estimates; state references. Address No. 164, care of DOMESTIC ENGINEERING, 64 North Jefferson St., Chicago, Ill. 7-2

WANTED—POSITION AS SALESMAN. THOROUGHLY posted in Plumbing, Mill and Steam goods. Twelve years' experience. Have wide acquaintance in South and West. Address No. 178, care DOMESTIC ENGINEERING, 64 North Jefferson St., Chicago, Ill. tf

WANTED—FOR THE ADVERTISING DEPARTMENT OF A large manufacturing concern, a competent man who has had experience in compiling catalogues of plumbing material. Address Sanitary, care of DOMESTIC ENGINEERING, 89-91 Centre St., New York, N. Y. 7-9

WANTED—SALESMEN TO CARRY A LINE OF PLUMBERS' specialties on commission, calling on jobbers only. Give references, lines you now handle, and territory you cover. Address No. 166, care of DOMESTIC ENGINEERING, 64 North Jefferson St., Chicago, Ill. 7-2

WANTED—PARTY WITH SOME CAPITAL TO ASSIST IN management of growing manufacturing and jobbing business in large city. Must have a thorough knowledge of supply business in all its branches. Concern has a first-class reputation. None but A1 party need apply. Address No. 179, care of DOMESTIC ENGINEERING, 64 North Jefferson St., Chicago, Ill. 7-23

FOR SALE—VALVES. THE FOLLOWING VALVES IN first class condition: 1—12 in. Globe Valve with by-pass valve; 2—9 in. Globe Valves; 3—5 in. Globe Valves; 3—5 in. Angle Valves. Jenkins Bros. flanged valves only used two months and equal to new; 9 in. valves can be used for 8 in. with flanges. Price, $100 cash for lot. Address 130 Second St., Milwaukee, Wis. tf

WANTED—SEVERAL EXPERIENCED MANUFACTURERS' agents to handle good line of Brass work on commission. Address No. 180, care of DOMESTIC ENGINEERING, 64 North Jefferson St., Chicago, Ill. 7-9

SPECIALTY FOR SALE—ON ACCOUNT OF THE DETAILS of my retail plumbing and heating business, I am unable to properly attend to the sale of the McVey Basin Clamp. This clamp has a very large sale in the jobbing houses in the country and only needs competent supervision to very greatly increase. I desire to sell the patterns and stock on hand. Address J. M. McVey, Lima, Ohio. tf

WANTED—TRADE CATALOGUES TO DESIGN AND COMpile in any part of the U. S. by an expert, who thoroughly understands the Plumbing, Gas and Steam Supply business, in connection with every detail of catalogue work, including illustrating, printing, binding and distributing. Best of references and samples of completed books. Work done under supervision if desired. Address No. 175, care of DOMESTIC ENGINEERING, 64 North Jefferson St., Chicago, Ill. 7-2

WANTED—A POSITION AS BOOKKEEPER AND ESTIMator in the plumbing business, or as bookkeeper in a wholesale house. Am not physically strong and have to have an indoor position; am experienced, and at present employed in a Canadian plumbing establishment. Would like to remain in Canada if possible, but would go to the States. Will give the very best services of which I am capable. Address No. 172, care of DOMESTIC ENGINEERING, 64 North Jefferson St., Chicago, Ill. 7-16

ENGINES.

1—250 H. P. 18-in. x 36-in. Buckeye Automatic ....$1,350.00
1— 90 H. P. 11-in. x 18-in. Buckeye Automatic .... 550.00
1— 50 H. P. 10-in. x 24-in. Nordberg Corliss ..... 500.00
1—250 H. P. 18-in. x 42-in. Weisel & Vilter Corliss.. 1,300.00
1—175 H. P. 18-in. x 24-in. Atlas Heavy Duty Automatic ..... 650.00
1— 70 H. P. 14-in. x 16-in. Porter Mfg. Co., Center Crank ..... 300.00
1—125 H. P. 12-in. x 36-in. Girder Frame Automatic. 300.00

These engines are all still on their foundations and are absolutely as good as new.

BOILERS.

5—80 H. P. 60-in. x 16-ft. 2-ring design, 44 4-in. flues complete with full fronts and trimmings, including Hawley Down Draft Furnaces, each.....$300.00
1—200 H. P. Baragwanath Copper Tube Heater, almost new .....$225.00

Address F. E. Pfannmueller & Co., 733 The Rookery, Chicago, Ill. 'Phone, 1767 Harrison.

**FOR SALE CHEAP.—PATterns for a full set of Durham House Drainage Fittings, Ells, Tees, T. Y's, etc. If interested, will send full information and price. Address "Drainage," care of Domestic Engineering, 91 Centre Street, New York City.**

## BUSINESS CHANCE

**DESIRE TO MAKE arrangements with some large manufacturing concern, jobber of steam supplies or radiator company either to purchase or lease valuable patent rights to profitable steam specialty for which there is a large demand and a very excellent opportunity to make money from. Also have factory especially equipped to manufacture same and will be pleased to give detailed information to parties interested. Address NO. 176, care of DOMESTIC ENGINEERING, 64 N. JEFFERSON ST., CHICAGO.**

### PEORIA, ILL.

**Peoria is still on the map,** and while there is no boom here there are a great many buildings going up, both for residence and business purposes. One of the largest is the Schipper & Block dry goods and furnishing house; 8-story, steel constructed and fireproof. The building is now under way.

**Building** was very unsettled this spring as the brick layers and hod carriers were out for eight weeks. Everything is going on all right now, as their differences have been settled to the satisfaction of both parties.

**The plumbers** here are all busy and from the outlook the fall trade will be better than last year.

**Some weeks ago** I directed a letter to the following cities to the secretary of the board of examiners of plumbers, viz.: Chicago, Evanston, Aurora, LaSalle, Moline, Ottawa, Springfield, Rockford, Rock Island, Bloomington and Joliet, asking if they would send a representative to any city in the state to be determined by a vote of the different representatives, to form an organization and make rules and regulations in regard to the examination of plumbers. Every board has its own rules and regulations but it is a very easy matter for a plumber not known to any of the boards to take the examination and in doing so give the name of someone not a plumber to simply get into the plumbing business. This and other abuses of the trade would be stopped and the state law enforced as it was intended for the protection of the people and those regularly engaged in the plumbing business.

The only responses I received were from Joliet, Rock Island and Moline. All were heartily in favor of this meeting. The other cities I have not heard from up to this date. The plumbers in the different cities should take the matter up with the board of examiners and encourage a meeting for the best interests of all.

Believing that your paper reaches every up-to-date plumber in the state, and knowing that at all times you are interested in anything pertaining to the good of the trade, I trust that you will bring this to the notice of the readers of DOMESTIC ENGINEERING. Yours respectfully,

E. H. DONAHOE.

Superintendent of Plumbing and Secretary of Board of Examiners.

---

**South Milwaukee, Wis.**—Megow & Wallace have been awarded the contract for installing a hot water heating system in Charles Kimnach's new house at Cudahy.


DUGGER-CLARK CO.

34 Clark St., Chicago

Represent the Manufacturer to the Jobber

WE HAVE established a fine line of customers among the jobbers of the section tributary to Chicago, and seek strictly first-class accounts from manufacturers who desire to introduce their goods to jobbers only.

**Illinois Smelting & Refining Company**

Cable Address, Smelref, Chicago

122 N. Peoria Street, Chicago, Ill.

*MANUFACTURERS OF*

Pig and Bar Lead, Spelter, Babbitt Metals, Linotype, Stereotype, Monotype and Electrotype Metal, Yellow Composition and Phosphor Ingots.

DEALERS IN NEW AND OLD METALS AND SMELTERS OF ALL KINDS OF DROSS

PERFECT CATALOGUE CUTS ALL IN THE DRAWING

Always deal with the artist direct when in need of good illustrations: THE ONLY SURE WAY

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**The Fat Pay Envelope**

goes to the man who KNOWS

The man who knows is the man who reads and strives for advancement.

The igorant man is left behind.

The intelligent plumber—the one who reads and keeps posted and does a little thinking on his own account—goes to the front and stays there.

More knowledge means more pay.

# Watch us Grow!

We sell to Master Plumbers direct.

## Water Closet Combinations

of every description.

*Entirely Our Own Productions and Designs*

ASK FOR PRICES

## Columbia Pottery & Mfg. Co.

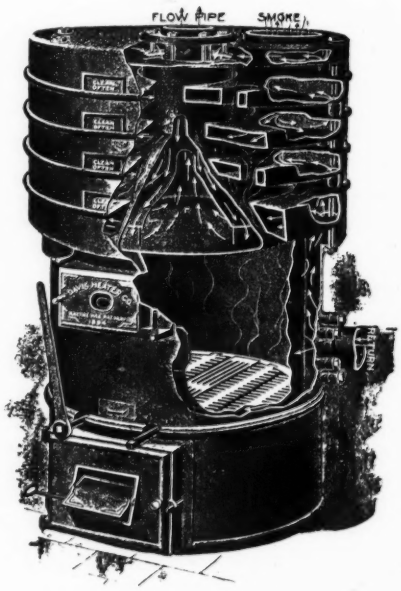
KOKOMO, INDIANA.

# THE BEST

That's an easy claim to make. Hard to prove though. Still we have had such unvarying approval of the merits of

## The Davis Heater

during the eight years that it has been in use—of its economy and serviceableness—that we believe you will agree with us that it is the best water heater on earth. Our agents think so and find profits in its merits




## DAVIS HEATER CO.

RACINE, WISCONSIN

# Rundle's Enameled Iron One Piece Lavatories

We fully guarantee all our goods and we claim that they are second to none on the market. . .

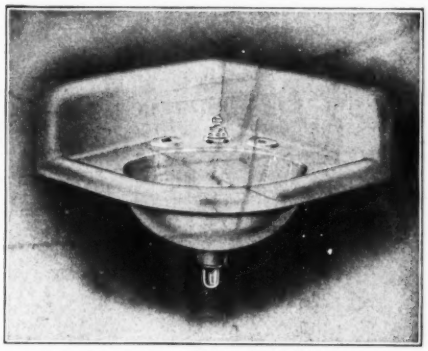
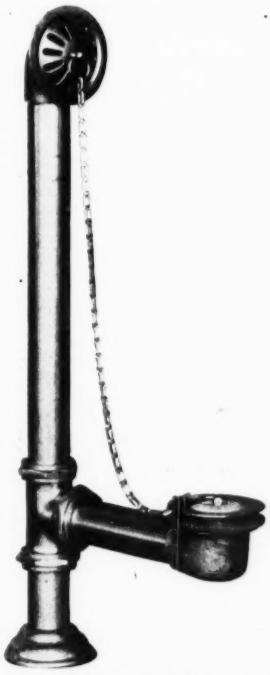


PLATE R 120—With Model Waste.

We also make a full line of Roll Rim Sinks, Flat Rim Sink Backs, Drain Boards and Slop Sinks. . .

## Rundle Mfg. Co., Milwaukee, Wis.

**A postal card will bring you a copy of our Catalogue.**



No. 8022—Connected Waste.

## American Pin Co.

Waterbury, Conn.

### A Few of Our SPECIALTIES

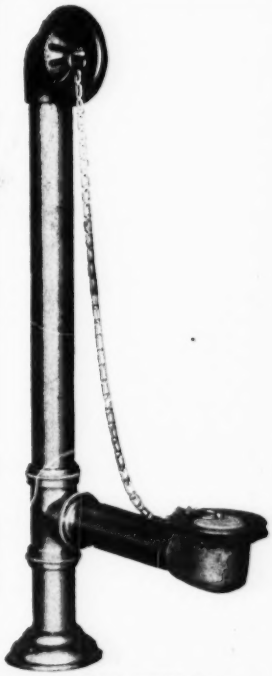
Chain Stays, Lavatory Legs, Lavatory Brackets, Basin Clamps, Basin Supplies, Bath Supplies, Escutcheons, Pipe Straps, Syphon Valves, Low Down Valves, Tank Brackets, Pipe Holders, Flanges, Stall Work, Strainers, Nuts, Screws, Tank Work.

ALSO MAKERS OF

GENERAL BRASS GOODS
From Sheet Metal or Castings

Get the Blue Print Catalogue.

N. Y. OFFICE: 441 Broadway.
CHICAGO OFFICE: 150 Michigan Ave.



No. 9205—Connected Waste.

# PLUMBING
GOODS

GEORGE H. TAY CO.
SAN FRANCISCO, CAL.

# HEATING
GOODS


SEE NEXT PAGE

Los Angeles GEORGE H. TAY CO. SAN FRANCISCO, CAL. Seattle

It will not pay you to buy Inferior
Plumbing or Heating Goods

***The Standard Goods are the Cheapest in the End.***

We carry a stock of the following:

American Radiator Company
Boilers and Radiators

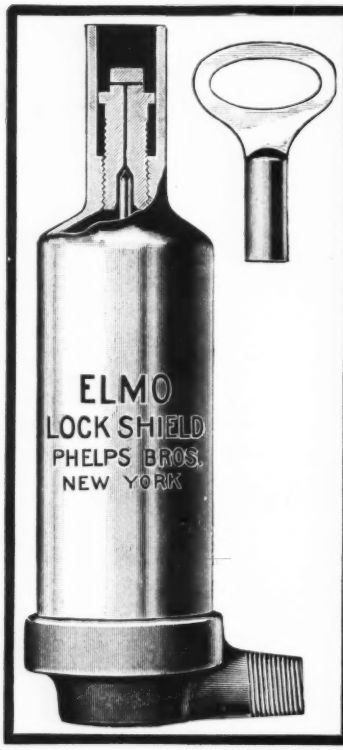
Standard Sanitary Mfg. Company
Enameled Bath Tubs and Lavatories

Trenton Potteries Co.
Sanitary Earthenware

Western Tube Co.
Wrought Iron Pipe Fittings and Valves

**As well as of all other standard Plumbing and Heating Goods**

We sell to the trade only. We solicit correspondence from anyone interested in **Plumbing or Heating.** We know a lot about it.




The ELMO

Lockshield Automatic Float Air Valve

Highest grade workmanship and material. Operated only with key in possession of engineer or janitor. Cannot be tampered with.

Our special expansion post rests on deflector plate which prevents any excessive air pressure raising float and binding valve, and insures perfect circulation in radiator. Also prevents accumulation of sediment around expansion post.

There are no small tubes or holes to get clogged up from sediment. Every valve thoroughly tested and guaranteed.

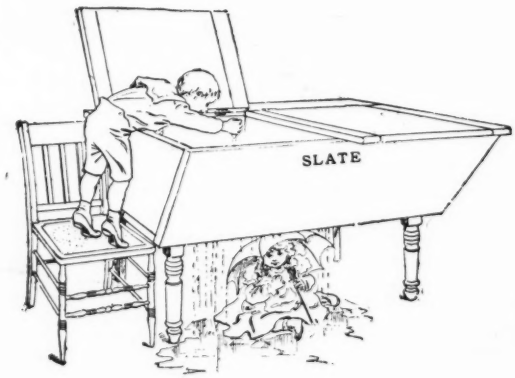
**Phelps Brothers, Mfrs.**

210 WATER STREET, NEW YORK CITY.

This is one of the Laundry Trays

PRONOUNCED OR MISPRONOUNCED

"Just as good as"




ALBERENE

OUR CATALOG—a postal will bring it—shows you that the CLAIM IS FALSE

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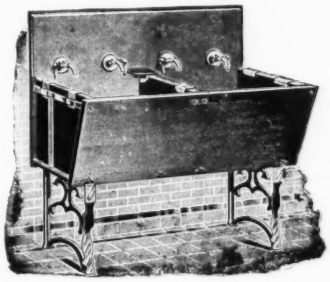
ALBERENE STONE COMPANY
54-60 North Clinton St., Chicago



# A Word to the Discriminating Jobber

It is to the cautious, discriminating buyer that we appeal.

Euclid Laundry Trays and Kitchen Sinks are by no means an experiment. They have been on the market for fifteen years and are used exclusively by many of the best jobbing houses of this country—concerns which value their prestige too highly to place before the trade an article which does not meet with their unqualified approval.

Euclid Laundry Trays and Kitchen Sinks are sold on their merits. For them we court the closest investigation.

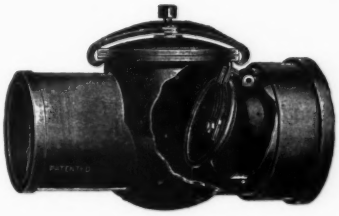
A trial order will convince you that they are all we claim for them. Write for catalogue. It tells the story.

**The Norcross Co.** **Cleveland, Ohio**

# "ACME"

## Sewer Gas and Back Water Valve and Cleanout

A PERFECT SEAL AGAINST SEWER



GAS, BACK WATER AND VERMIN

The Concave-convex form of the brass clapper, and the manner of seating and supporting it, are important features not found in any other back water valve. The oscillating clapper makes it self-closing and renders it impossible for anything to find lodgement either on clapper or on seat. Without the clapper it makes one of the most perfect cleanouts now on the market. Write for prices.

**SMITH & ANTHONY CO., BOSTON, MASS.**

WESTERN PLUMBING SUPPLY CO., 48-50 S. Franklin St., Chicago, Western Agents

NOT ONLY THE LATEST, BUT ALSO THE BEST

# M. I. W.

## BOILER STANDS

will support five times possible requirements. Weight of 12, 13 and 14 inch stands only 10 lbs. They occupy less space and ship to better advantage than any other boiler stand made. The side arms are adjustable so that stands will set level on any floor. We furnish special rings for odd size boilers without extra charge. All stands are carefully fitted and can be put together in half a minute. Our excellent facilities make it possible to meet all competition.

We make other plumbing specialties.
Write for catalogue and price list

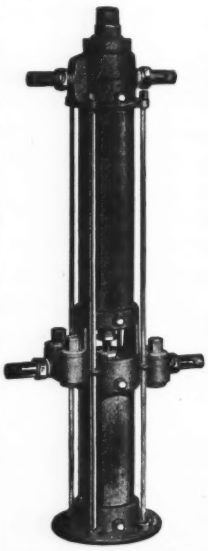
## MODERN IRON WORKS

QUINCY, ILLINOIS

The Regular Size

## Century Water Lift

is 3 x 3 x 6



It is the safe lift to buy since it is **Absolutely Reliable,** noiseless; the best possible in construction; throws lots of water; very easy to install; every part accessible; doesn't leak and the simplest lift in the world.

**The Organ Power Company**
Hartford, Conn.

In Ohio, Indiana and Michigan
Sold by

Barnes Mfg. Co.
Mansfield, Ohio.

### *What they say and Who say it.*

The Ohio Pump and Brass Company, of Columbus, O., claims for their Improved "Triumph" Water Lift, that it is the simplest constructed water lift in existence; that it will last longer and require less attention and repair than any other; and that it will give perfect satisfaction, if correctly installed.

From some of the complimentary letters received by the company, the following extracts have been taken:

"We have used a great number of your Water Lifts, and we find them entirely satisfactory." Saunders & Esswein, Columbus, O.

"Please send us another No. 1 'Triumph' Water Lift. This is the most complete motor we have ever used." The Thomas Gibson Company, Cincinnati, O.

"I have had one of your Lifts in my residence for the past 18 months. It has given me good service, and I have never had any trouble with it, nor has it needed any repairs." P. J. Freaney, Indianapolis, Ind.

"We congratulate you on the improvements which you have recently made on your 'Triumph' Water Lift. It was good before—now it is in a class by itself." Loos & Reynolds, Columbus, O.

"Will say that the 'Triumph' Water Lift has been in my residence and in constant use for about 18 months. It has never had to be taken apart or repaired, and has always worked well, and today it is in good working order." Holmes & Co., Indianapolis, Ind.

The Improved "Triumph" Water Lift may be purchased from any jobber or direct from the manufacturers. The Ohio Pump and Brass Company, 900 Oak street, Columbus, Ohio. Adv.


**READ THE ADVERTISEMENTS**

## Greater New York

JOHN K. ALLEN, President. ELMER CRAWFORD, Gen'l Manager

E. W. BARNES, E. DeFOREST WINSLOW, } Representatives.

Office: 89-91 Center Street. Telephone Franklin, 1630

**Announce Removal.**—J. Morrison Gilmour has just announced his removal from 556 West Sixteenth street to Union square.

**Move Into New Quarters.**—W. Y. Jack & Co., formerly located at 730 Lexington avenue, have moved into new quarters at 618 Lexington avenue.

**Calls on Trade.**—Archie Maddock, of Thomas Maddock & Sons Co., Trenton, N. J., was in town on Monday of last week calling on the trade.

**Loss by Fire.**—The plumbing establishment located at 15 Bleecker street and conducted by A. Stitz was badly damaged by fire last week.

**Plumbing for Down-Town Building.**—William Patton, of 220 Canal street, is employed with the plumbing for a large building at 95 Park row.

**Master Plumber Invents New Device.**—George B. Brown, of 76 East One Hundred and Twenty-fifth street, has just patented a new 2x4-inch Y brass ferrule.

**Fitting Up Large Dwelling.**—J. F. Hamil, of 764 Tenth avenue, has the contract for the plumbing of a large dwelling at 313 Ninth avenue for Mr. Dugan.

**Plumbing for New Building.**—W. Messer, of 157 Suffolk street, has the contract for placing the plumbing in the new building at the southeast corner of Pitt and Stanton streets.

**Plumbing for Large Apartment House.**—J. R. Johnson, of 384 Amsterdam avenue, is engaged with the plumbing for a large apartment house at One Hundred and Eighth street and Broadway.

**Contracts Completed.**—L. H. Wenzell, of 703 Columbus avenue, has just completed the plumbing for four nice residences at Sixty-sixth street and Madison avenue for Raymond Hoglan.

**Plumbing for New Rectory.** Edward J. McCabe & Co., of 862 Park avenue, have been awarded the plumbing contract for the new rectory for the St. Agnes Catholic Church at 141 East Forty-third street.

**Heating Large Apartment House.**—Sayles & Co., of 446 Fourth avenue, are busy with the installation of the steam heating plant for a large apartment house at 11 East Fifty-second street for Otto Eidlitz.

**Extensive Alterations for Residence.**—Daniel Ryan, of 778 Sixth avenue, is at present busily engaged with the extensive overhauling of the plumbing for Mr. Beekman's house at 25 East Forty-seventh street.

**Plumbing Large Building.**—William J. Lawlor, of 93 Greenwich street, has received the contract for placing the plumbing in a large brick and stone building at 247 West Thirtieth street for Henry Harburger.

**To Represent the Kellogg-Richmond Co.**—William Greer, formerly representing the J. L. Mott Iron Works in New England, will hereafter represent the Kellogg-Richmond Co. in New York City and surrounding districts.

**Plumbing and Heating Palm Garden.**—Charles W. Barnett, of 118 West Twenty-sixth street, is busy with the plumbing, heating and gas fitting for a large palm Garden on Fifty-eighth street between Third and Lexington avenues.

**Plumbing and Heating New Theater.**—Rossman & Bracken, of 132 East Forty-second street, have been engaged for some time with the plumbing and heating for the new Majestic Theater at Fulton street and Ashland place, Brooklyn.

**Plumbing Six-Story Building.**—The plumbing contract for the new six-story building now being erected at 28 to 32 West Twenty-second street for Louis Sachs has been awarded to Wells & Newton, of Sixteenth street and Avenue C.

**Plumbing Madison Avenue Residence.**—Alexander Bryant Co., of 1 Madison avenue, has the contract for the plumbing work for a handsome residence at 214 Madison avenue for W. A. Astor. The finest material will be used throughout.

**Visited New York.**—Frank P. Day, of the Day Metallic Mfg. Co., Detroit, Mich., visited their New York office at 286 Pearl street last week, going later on a trip through eastern Canada. Mr. Day will shortly go to St. Louis to superintend their exhibit at the Exposition.

**Holds Meeting at Rockaway Beach.**—The regular meeting of the New York City Association of Master Plumbers was held at the New York Hotel, Rockaway Beach, on Friday, June 17. A sumptuous fish dinner was served to the members. This was one of the most successful meetings the association has ever held.

**Visited by National President.**—National President E. D. Hornbrook, of Kansas City, visited the **Manhattan** Master Plumbers' Association on Tuesday evening of last week, at which he gave them one of his enthusiastic addresses. The chief topics of his discussion were the rapid strides that the National organization is taking and the fine arrangements that have been made for them when they meet at St. Louis in September. His having to catch an early train prevented any social entertainment, much to the disappointment of the Manhattan plumbers.

**The Manhattan Master Plumbers' Outing.**—At a special meeting of the Manhattan Association of Master Plumbers held on Friday afternoon, June 24, it was decided to hold the annual outing of the association on Wednesday, August 3, at Bayside, L. I. The chief feature of the occasion will be a clam bake. This is a radical departure from the usual custom. The following able committee on arrangements has been appointed: James D. McEntee, chairman; T. J. Byrne, Julius Berliner, I. O. Shumway, Isaac J. Brown, John Renehan, Thomas J. Cummings, Philip Brady, A. H. Brown, Thomas Corcoran, Jr., T. J. Tuomey and J. M. O'Brien. A special train will leave the Thirty-fourth street ferry at 8:30 a. m. sharp. The majority will probably return about 7 p. m.

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## Boston and New England

JOHN K. ALLEN, President. ELMER CRAWFORD, Gen'l Manager

E. W. BARNES, Representative.

Offices: 41 Lincoln Street. Telephone, 1251 Oxford

**A Jolly Boniface.**—Ira D. Smith, formerly of the Smith & Thayer Co., of Boston, and well known to the heating and plumbing trades of New England, has purchased the Leister Hotel in Worcester, Mass. Mr. Smith will pay attention to automobile parties. The hotel is situated just about fifty miles from Boston or at the end of an ideal run both as to roads and distance. The trades will wish him well.

**Good Piping Contract.**—Joseph Ardini, 95 Endicott street, reports a very busy spring's work in piping. Among operations he has recently finished may be mentioned a house for Rossi Bros. at 18 Second street, Chelsea; the store at 103 Causeway street, and the gas piping in the new residence for George Chase on Winthrop avenue, Beachmont. Mr. Ardini has also installed new radiation in St. Mary's parochial residence, on Cooper street, and a new gas lighting system in the parochial school at 205 North street, besides the high pressure steam piping in connection with the installation of a new boiler at 30 Eastern avenue for George E. Beals, of the Wentworth building. He also has many smaller contracts on hand.

**New England Building.**—The following account of contracts awarded during the past week does not speak as well for business connected with the building lines as have some of the weeks recently passed, but it shows no material dropping off and is therefore rather encouraging. There is a strong sentiment among the larger contractors that when the presidential nominations are made and settled the business will open up strongly. The following table, compiled by the F. W. Dodge Co., shows the total value of contracts awarded on new building and engineering enterprise throughout New England as compared with corresponding periods during several years past. Approximately 21 per cent of the total amount of contracts awarded for the week is for manufacturing projects.

| | |
|---|---|
| To date from January 1, 1904 | $42,011,000 |
| Corresponding period of 1903 | 45,236,000 |
| Corresponding period of 1902 | 75,578,000 |
| Corresponding period of 1901 | 58,457,000 |
| For week ending June 22, 1904 | 1,846,000 |
| Corresponding week of 1903 | 2,542,000 |
| Corresponding week of 1902 | 3,914,000 |
| Corresponding week of 1901 | 2,073,000 |

**Boston Delegates to St. Louis.**—The Master Plumbers of Boston and vicinity on Thursday, June 23, elected the following delegates to the national committee at St. Louis, September 6, 7 and 8, next: Daniel G. Finnerty, John W. Cosden, David Craig, Thomas Garvey, John Manning, Andrew F. Curtin, Robert F. Brown, Basil J. A. Serres, Daniel Shannon, John P. Drury, J. Warren French, John K. Tully, A. E. Touchet, Thomas E. Sharpe, Thomas J. Tute, F. F. Muldowney, John C. McCoole and James O'Connell, eighteen in all, and it is hoped the entire delegation may be on hand. If it is hoped to have the convention in Boston that city needs a large representation at St. Louis and once in twenty years is not very often to have the members visit the Hub.

**More School Houses.**—On Friday, June 24, the school house commissioners of the city of Boston opened bids for remodeling the heating and ventilating systems of the Eliot and the Emerson school houses. There were seven bidders as follows on each school. The bids for the Elliot school were F. S. Cleghorn Co., $10,512; A. B. Franklin, $10,237; A. Duncan & Co., $13,489; Pierce & Co., $12,345; Huey Bros., $10,377; A. A. Sanborn, $11,548; Bradley & Chatman, $11,756. A. B. Franklin was low, being $275.10 below next high bidder and $3,252 below A. Duncan & Co., the highest bidders. Franklin was also $1,229.60 below the average bid of $11,466.60.

The bids on the Emerson School were: A. B. Franklin, $5,762; A. Duncan, $5,761; Pierce & Cox, $6,293! Huey Bros., $5,277; A. A. Sanborn, $6.285; Bradley & Chatman, $5,800; Isaac Coffin & Co., $5,337. Huey Bros. were low, being $60 below next high bid of J. Coffin & Co. and $1,016 below the high bid of Pierce & Co., the highest bidders. They were also $511 below the average bid of $5.788.

When it is taken into consideration that these were both what might be termed repair jobs, the figures were very close and leaving the extreme high bids in either case will make the average bid come within easy figures of the successful bidder.

## MASSACHUSETTS

**In Springfield.**—Hawes & Gray will install the new boiler in the Charles Street Schoolhouse.——George R. Estabrook has the contract for installing the heating system in the new Palmer Savings Bank at Palmer, Mass. Smith & Cotter will do the plumbing.——The Selvey-Wyckoff Co. have the contract for plumbing the new annex to the Cooley Hotel.

**Westfield.**—Daniel L. Hood, of 47 Main street, has been awarded the contract for plumbing and sheet metal work in the new sixteen-room High School being erected in Turner's Falls, Mass. It is reasonably certain that Mr. Hood will also do the steam heating in the school. He is also doing the heating in the new plant for the Vitrified Wheel Co. in this city and the sheet metal work for the ventilating in the fine new residence being erected in Lakeville, Conn., for E. W. Spurr, in which Robbins, Gamwell & Co., of Pittsfield, are doing the heating.

## CONNECTICUT

**Hartford.**—Hanlon & Murphy have the contract for plumbing the new two-family house on Freeman street for Mr. F. E. Heyer.——N. B. Bull & Son have the contract for the copper work in connection with the repairs being made on the dome of the State House.——A. N. Smith, the North End plumber, is now fully established in his new quarters and ready for any business rush.

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**Philadelphia**

JOHN K. ALLEN, President. ELMER CRAWFORD, Gen'l Manager

T. DeFOREST WINSLOW, Representative.

Office: 18-24 S. Seventh Street. Telephone, 21-41

**Open Office in Builders' Exchange.**—Parker & Anderson have opened an office in the Builders' Exchange with a complete display of filters.

**Enlarge Plant.**—G. L. Moffett & Co., of Camden, N. J., have been compelled to enlarge their plant considerably in order to keep up with orders.

**Heating Residence.**—Edward Thomson, of 1603 Sansom street, is placing a hot air heating system in S. R. Riley's residence at Twentieth and Race streets.

**Plumbing Pine Street Residence.**—William Newell & Bro., of 1713 Sansom street, are installing the plumbing in the handsome residence of Mrs. Barnes at 2200 Pine street.

**Plumbing Large Church.**—Newton & Gray, of 1210 Sansom street, are progressing rapidly with the plumbing for the Kensington Congregational Church on Indiana avenue.

**Plumbing Four New Residences.**—Rhodes Bros., of 5040 Germantown avenue, are doing the plumbing for four new residences at Old York road and Colwyn street for H. H. Heist.

**Alteration Work.**—Holmes Bros., of 2102 North Eighth street, are engaged with the altering of the plumbing work for W. H. Stern's residence at Carlisle street and Girard avenue.

**Residence Heating.**—Mervine Bros., of 132 South Seventh street, have nearing completion the hot water heating for William Clapper's residence at 747 North Forty-third street.

**West Philadelphia Man Busy.**—Frank J. Eustace, of 4417 Lancaster avenue, has the contract for the plumbing installation in Charles M. Cullen's residence at 762 Brooklyn street.

**Plumbing Store and Residence.**—F. J. McGarry & Bro., of 4326 Lancaster avenue, are installing the plumbing in a new store and residence at 4322 Lancaster avenue for W. F. Munzer.

**Plumbing New Addition.**—Herman Goldner, of 156 West Lehigh avenue, has the contract for plumbing the new addition to the store building at 2455 Frankford avenue for D. F. Povey.

**Heating Store and Residence.**—C. J. McCarthy, of 4560 Wayne street, Germantown, is installing the steam heating plant in a store and residence at Eighteenth and Wingohocking streets.

**To Erect Large Church.**—P. J. Hurley, of 1216 Chancellor street, has been awarded the contract for building the new Evangelical Lutheran Church of Our Saviour at Allegheny avenue and Hurley street.

**Good Residence Work.**—S. T. Evans, of 701 Girard avenue, is doing the plumbing for Henry Ditman's residence at Twenty-first street and Ridge avenue. Mr. Evans will use the best of material.

**Heating Five New Houses.**—The Monitor Steam Generator Co., of 53 North Seventh street, is installing the heating in five new houses for Charles Wilson's Sons at Frankford avenue and Harrison street.

**Plumbing Two New Residences.**—Samuel Clark, of 4347 Frankford avenue, is at present placing the plumbing in two handsome residences at Wakeling and Cedar streets, Frankford, for Benjamin W. Lawton.

**A Good Job at Parkland.**—Harry W. Wilcke, of 49 North Tenth street, is remodeling the plumbing and installing a new system of piping and engines at the Parkland waterworks, Parkland, Pa.

**Plumbing Ambulance House.**—J. Sellers Pennock, of Seventh and Filbert streets, has nearing completion the plumbing for the ambulance house at Eighth street and De Lacey place for the Pennsylvania Hospital.

**Plumbing Large Addition.**—William M. Anderson, of 108 South Twentieth street, is installing the plumbing in the large addition to the Philadelphia Home for Incurables at Forty-eighth street and Woodland avenue.

**Awarded Large Contract.**—Newton & Gray, of 1210 Sansom street, have been awarded the contract for the plumbing installation for the large fertilizing plant at Greenwich for the American Chemical Works.

**A New Man in the Business.**—J. Riley, for some years connected with John C. F. Trachsel, of 230 Arch street, has embarked in the heating business for himself in Camden, N. J. He has started the ball rolling by landing several nice contracts.

**To Move on July First.**—W. P. Ogelsby, who has been engaged in the plumbing business for some years at 1025 Walnut street, will on July 1 move into the Land Title building, room 530. The construction and work shops will be at Broad and Carpenter streets.

**Heating and Plumbing Residence.**—The plumbing contract for the new residence at the northwest corner of Sixtieth and Vine streets for Harvey Cox has been awarded to John Kaye, of 6203 Race street. The heating work has been placed in the hands of Frank Boon.

**Will Philadelphia Master Plumbers Have an Outing?**—Is the Master Plumbers' Association of Philadelphia to have an outing this year? That is a question that is buzzing in a good many ears. The memory of the good time spent at Essington a few years ago has not forsaken them. The question now is, "Are we to have another one?"

**Philadelphia Master Plumbers' Organizations.**—The Philadelphia plumbing craft seems to be taking a sudden liking for organization. Within the last two years three different local associations have been organized—namely, the Northeastern, the Northwestern and the Southern Associations. The majority of the members of these locals belong to the regular Master Plumbers' Association of Philadelphia. Good fellowship is promoted—the locals having their sociables the same as any other organization. The last recruit to join the list was the Southern Association, which is composed of master plumbers in the southern section of the city.

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**The Western States**

JOHN K. ALLEN, President. ELMER CRAWFORD, Gen'l Manager

FRANK P. KEENEY, Representative.

Office: 58-64 North Jefferson Street. Telephone, Monroe 816

## CHICAGO

**M. L. Mandable,** Thirty-fourth and Cottage Grove avenue has just finished up two good jobs of plumbing for Nelson Morris.

**Alderman Carey,** chief wampum of the Harrison administration, is putting up six flat buildings at Fifty-fifth boulevard and Ashland avenue. Needless to say the plumbing will be of the best.

**The plumbing work** in the new Baltimore & Ohio freight warehouse at Twelfth street and the river fell to the lot of C. J. Stein, of State street. It was not a particularly expensive equipment, but was done in Stein's best style, which is equivalent to saying that it is a good sanitary job.

**No change** was made in the slate of the journeymen plumbers as announced on this page last week. Evidently the jours know a good thing when they see it, for the election on Monday evening was carried through with a hurrah, and the installation of officers which followed was a love feast of the genuine order.

**Chicago master plumbers** will hold a picnic some time early in the autumn months if present plans prevail. This is the plan recommended by the entertainment committee, Messrs. Lang, Duffy and Griffith, for getting the boys together after the summer vacation. It will be a family affair at which everybody and his wife will be welcome, regardless of membership or nonmembership in the association. Details will be announced later.

**Fifteen Thousand Dollars** in round figures is what it cost Pettibone & Mulligan to give the workmen in their big new factory at Forty-eighth and Division streets the benefits of proper sanitary arrangements. The three main toilet rooms are lined throughout with slate, have individual closets and urinals and up-to-date factory lavatories of special design. Thomas McGrogan, of Austin, did the plumbing work, which was installed after plans by W. R. Marshall.

"**Can't say why** plumbing fixtures should be affected by a presidential year," said a downtown plumber who confines himself largely to jobbing work, "but it's a fact that fewer fixtures seem to get out of repair these days than at any time for years past. As for alteration and reconstruction work, there isn't any worth speaking of." And this man isn't a pessimist by nature, either. "The fellow who says he is getting even a moderate amount of work at satisfactory prices is simply whistling to keep his courage up," he continued gloomily. "Of course this can't last forever, but it has lasted long enough to knock the bottom out of all the profits we made last year."

**Seen on Chicago Streets.**—J. W. Fry is a hustling Lake Forest plumber who was encountered in the supply district this week. "Doing fine," was his genial verdict of things up state.

R. G. Campbell, of the Campbell Plumbing Co., Hammond, Ind., was in the city purchasing some special goods needed for work on hand.

Clarence Funkey, of Funkey & Son, Hancock, Mich., drifted into town one day this week and made himself at home in the supply district.

W. G. Grimes, of Batavia, Ill., is a substantial plumber who hadn't any complaint to make when asked as to trade conditions. "Always manage to keep busy," was the encouraging word.

G. W. Shearer, of Cedar Falls, Iowa, was in the hands of Chicago friends for a few days this week.

William Schober, of Morris, Ill., was in the city looking for a competent journeyman to help him in a rush of work.

**The tragic death** of Mr. and Mrs. George E. Dixon in an automobile accident on Sunday morning last has cast a gloom over the Chicago heating trade, in which Mr. Dixon held a very prominent place.

Mr. and Mrs. Dixon were making a quick run from their residence in La Grange to keep an appointment for luncheon in Sheridan Park. It is supposed that an automobile passing in the opposite direction cut off Mr. Dixon's view of the track of the Elgin, Aurora and Chicago electric railway, which crosses Austin avenue at grade, with the result that he ran his machine squarely in front of the approaching suburban car.

The crash completely demolished the automobile and terribly mangled the occupants, whose bodies were thrown a hundred feet with the debris of the automobile.

To add to the horror of the accident the gasoline tank exploded, setting fire to the shattered automobile and the clothing of the victims.

The force of the collision broke the air brake of the electric car, which ran on for half a mile before it could be stopped. No one in the car was injured.

Mr. Dixon was dead when found a few minutes later. His wife, although alive, was unconscious and died a few minutes later.

George E. Dixon, Jr., was notified of the accident and hastened to the spot. He was prostrated by the death of his parents. Another son, Horace Dixon, was in New York and was telegraphed for.

Mr. Dixon was 54 years old, his wife being four years his junior. An Englishman by birth he had attained the rank of major in the British army before coming to this country. He had been engaged as engineer and contractor for steam work under the style of George E. Dixon & Co. since 1885, having his place of business at 169 Canal street.

Two sons survive, George E., Jr., who has been connected with his father at the Chicago office, and Horace, who managed a branch office in New York. The business will be continued under their joint management.

The sympathies of the trade have been deeply stirred by the suddenness and the shocking nature of the accident and the surviving members of the family have the sincere sympathy of all in their great affliction.

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# The Pacific Coast

JOHN K. ALLEN, President. ELMER CRAWFORD, Gen'l Manager
OFFICES:
San Francisco, Cal., 230 California St., G. P. MANCHESTER, FRED J. GOBLE, Telephone M 1042
Los Angles, Cal., 223 W. Second St., W. D. CURTIS, Telephone, M 1456
Portland Ore., McKay Building, WM. CANDLIN


## SAN FRANCISCO

**A Good Job.**—W. S. Snook & Son have received a $3,450 contract from Katherine and Marguerite Sanderson and Cecile J. S. Durbrow for the plumbing of a three-story building on Virginia place near Broadway.

**To Remove Soon.**—The Hercules Gas Engine Works are to remove by July 1 to larger quarters at 603 Mission street. The old place where they have been for so long, 167 First street, has proven too small for the increase of business.

**Heating Company Moved.**—The Royal Heating Co. has removed its offices to 738 Mission street, where commodious offices have been secured in a new up-to-date building. This company has plenty of work on hand at present and has just finished some large jobs on Mission street.

**Plumber Dead.**—Word has been received here of the death of John L. Stock, of San Jose, Cal., the senior member of the plumbing firm of John L. Stock & Sons. The deceased was a native of Chicago, 54 years old, and leaves a widow and a son. He was well known among the business men of San Francisco and took an active part in business affairs at San Jose, his home.

**Plumber Injured.**—Thomas J. Brady, a prosperous plumber who lives at 810 Castro street, Oakland, and conducts a plumbing establishment at 467 Eighth street, was found at Mission and Fremont streets, in San Francisco last Saturday night, June 18, with a badly fractured skull and bleeding from a severe cut in the back of the head. As he had considerable money with him and had crossed the bay to collect a bill of $36, it is thought that he is the victim of a footpad.

**Defective Plumbing Causes Death.**—Jay Federlein, who lived at 867 Bush street, was found dead in his room last week, and indications pointed to suicide, but an investigation by City Gas and Water Inspector O. M. Tupper showed that defective plumbing was the cause. The gas meter which was under the room was so arranged that drainage flowed into it and that the water temporarily shut off the flow of gas. Such conditions occur in many residences and are great sources of danger.

**Good Business.**—J. G. Grannis & Co. are doing a good business at present and have a large number of men employed. They are now at work on a system to take care of sawdust and shavings for the American Box Factory and are installing the same kind of work for several other planing mills. The contract for work for the Pacific Union Club has been added to until a $3,500 job has come to be a $11,000 one. The original specifications for the heating and ventilating work on the Merchants' Exchange building have also been largely added to, and a heavy crew are at work here. Work is also progressing on the Graham building, on Ellis street, and on a modern apartment house at Ellis and Hyde streets.

**A Budget of Contracts.**—The First National Bank of Berkeley has contracted with the William F. Wilson Co. for the heating work in a five-story building to be erected at the corner of Center street and Shattuck avenue, Berkeley, the cost being $2,204.

William John has contracted with Frank J. Klimm for the plumbing, gas-fitting, sewering, etc., in two three-story frame flats on Ellis street near Gough, San Francisco, for $2,231.

T. J. Healy & Son have secured the contract from Thomas Hancock for the plumbing, gas-fitting, draining and sewerage in a three-story frame building to be erected on Haight street near Masonic avenue, for $1,042.

J. Looney has secured the contract for the plumbing, gas-fitting, etc., in a three-story and attic frame building to be erected by S. C. & S. G. Buckbee on Jones and Steveloe streets, San Francisco, for $3,455.

Fannie M. O'Neill has awarded to W. G. Britt the contract for the plumbing, etc., in a two-story frame building to be erected on Ashby avenue and Shattuck avenue, Berkeley, to cost $3,100.

Mrs. Eliza Wilson has contracted with John H. Cummins & Co. for the completion of plumbing work in a store room at 431 South Broadway, Los Angeles, and for a building at 428-34 Hill street, in the same city.

## CALIFORNIA

**Plumbers Strike Again.**—Union plumbers of Pasadena have started another strike. At a recent meeting they voted against returning to work with non-union plumbers. A number of the master plumbers advertised for non-union help during the recent strike and put the strike breakers to work. Now they decline to dismiss these men and the union feels it cannot have its members working side by side with the non-union plumbers who were instrumental in breaking the former strike. It is said that the master plumbers are unwilling to lift the open shop rule adopted a short time ago, although they would like to have a number of their old plumbers back at work. Just what will be the result of the second strike is not known, but both sides hope for an amicable adjustment of differences within a few days. On the part of the union it is known that members that were out against their desire in the single apprentice rule strike are firm in the present strike, believing that the employment of non-union men will hava a tendency to disorganize the craft in Pasadena. A member of the master plumbers' organization states that the strike will not inconvenience the plumbing trade to any great extent, for the reason that there are enough non-union plumbers to go ahead with contracts, but they regret losing some of the old men who have worked for years with the local firms, and for this reason the master plumbers probably would consider negotiations to terminate the strike, should the union have anything satisfactory to offer without wiping out the open shop rule.

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## METAL MARKET

**New York Metal Market.**

Closing New York prices, car lots, on June 28:

| | |
|---|---|
| Copper, Lake, nominal | $12.75 |
| Copper, Electrolytic | 12.62½ |
| Straits Tin | 26.00 |
| Spelter | 4.85 |
| Pig Lead | 4.30 |
| Antimony (Cookson's) | 7.50 |
| Tinplates, Coke, 100 lbs., 14x20, f. o. b. mill | 3.45 |

**Chicago Iron Market, June 30.**

| | |
|---|---|
| Southern, No. 1, Foundry | $12.90@13.15 |
| Southern, No. 2, Foundry | 12.65@12.90 |
| Lake Superior Charcoal | 14.50@15.00 |
| Lake Superior Coke Iron No. 1 Foundry | 14.00@14.25 |
| Lake Superior Coke Iron No. 2 Foundry | 13.50@13.75 |
| Malleable Bessemer | 13.75@14.00 |

**Chicago Old Metal Market, June 30.**

| | |
|---|---|
| Heavy cut copper and copper wire | 10¾ cts per lb. |
| Light copper | 9 cts per lb. |
| Heavy machinery composition, closing price | 9 cts per lb. |
| Light brass | 5¼ cts per lb. |
| Clean red brass turnings | 8 cts per lb. |
| Clean yellow brass turnings | 6¼ cts per lb. |
| Joints | 6¼ cts per lb. |
| Heavy lead | $ 3.75 per hundred. |
| Block tin pipes | 23.00 per hundred. |

**The Iron Market.**—The first half of 1904 ends with a restrictive movement under way in the iron trade that promises to bring pig iron production back to the February basis, when the output was at a yearly rate of less than 15,000,000 tons. The extent of shut-downs of rolling mills and steel works on July 1 and the length of the idle period cannot be fullly determined at this writing, but will be considerable. Scale disagreements will cause some interruption, particularly in sheet and tin plate mills, and to some extent in bar mills. But there is a disposition among blast furnace operators to prevent the accumulation of their product, so that the idleness of the mills will not necessarily mean further weakening in the pig iron market.

## INDUSTRIAL STOCKS

The following are the prices bid and asked on the following industrial stocks, listed on the Chicago and New York Stock Exchanges, at the close of business on Thursday, June 30:

| | | |
|---|---|---|
| Central Foundry Co., com | 1⅛ | 1⅝ |
| Central Foundry Co., pfd | 7 | 9 |
| American Radiator Co., com | 44 | 45 |
| American Radiator Co., pfd | .. | 115⅛ |
| Trenton Potteries Co., com | 12½ | 13 |
| Trenton Potteries Co., pfd | 80 | 85 |
| U. S. Steel, com | 9 | 9⅛ |
| U. S. Steel, pfd | 54 | 54¼ |
| Republic Iron & Steel, com | 6 | 6¼ |
| Republic Iron & Steel Co., pfd | 39 | 41 |
| Nat. E. & S. Co., com | 15 | 18 |
| Nat. E. & S. Co., pfd | 80 | 85 |
| Amalgamated Copper | 49 | 49¼ |

## PERSONAL

**E. I. Dawes,** general manager, and Theodore Ahrens, president of the Standard Sanitary Mfg. Co., Pittsburg, and Oscar Marscheutz, of the same concern, were in Chicago in the early part of the week.

**E. D. Hornbrook** passed through Chicago Thursday on his way home from an eastern trip. Mr. Hornbrook spent some time at the seashore and is looking brown and healthy. Incidentally he purchased supplies for a number of model bath rooms, which he purposes to install in his Kansas City establishment just to show prospective customers what a really high grade equipment looks like.

**Attended His Alma Mater.**—Elmer Crawford, general manager of Domestic Engineering, attended commencement exercises at the University of Michigan last week. Mr. Crawford received the degree of A. B. from that institution in 1884 and the reunion of his class this year found 25 in attendance out of a class of 75 that graduated 20 years ago. Nearly all of the class are still living and many old-time stories and pointed speeches on early college struggles were the order of the day. A sumptuous banquet wound up a day of pleasurable reminiscences when the class adjourned to meet again in 1909.

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## DEATH

**Ernest E. Mann** died at his home in Detroit, June 17, from a stroke of apoplexy received five years ago. He was born in Ann Arbor and had been a resident of Detroit 30 years. He was for a number of years superintendent of the Michigan Radiator and Iron Mfg. Co., and when that company was taken over by the American Radiator Co. Mr. Mann was made assistant manager, which position he held until he was obliged to resign on account of illness.

## BOOKS AND CATALOGUES

The Bishop & Babcock Co., of Cleveland, send us their new catalogue of "Eureka" water lifts and organ motors. The cover design is excellent and the inside in perfect keeping with it.

We have received a catalogue of steel power boilers from the Kewanee Boiler Co., of Kewanee, Ill., interesting because, in addition to the line of power boilers heretofore manufactured by this company it includes for the first time the "Bonus Kewanee" water tube boiler.

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## SOUTHERN NOTES

**Atlanta Plumbers Strike.**—The union plumbers of Atlanta, Ga., are out on a strike for an increase of pay from $3.50 to $4 per day and a decrease of hours from nine to eight.

**Passes Plumbing Ordinance.**—The city council of Augusta, Ga., at its last meeting on Wednesday, June 22, passed an ordinance to govern plumbers and regulate plumbing and house drainage and the inspection of same in public and private property and buildings in that city.

**Want Plumbing Inspector for Lexington.**—At a meeting of the Joint Improvement Committee of Lexington, Ky., held last week, an ordinance was recommended creating the office of plumbing inspector. Nearly all the plumbers in the city were present and urged the passage of the ordinance, saying that imperfect plumbing resulted in disease, and one plumber said that imperfect pipes had been used for the last twenty years. They explained that cheap work and cheap pipes had been forced by competition, and that with a plumbing inspector only good plumbing could be done.

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**Carlyle, Ill.**—Greenville College contemplates the erection of a $6,000 heating plant.

**Pewaukee, Wis.**—A heating plant to cost $20,000 will be put into St. John's Military Academy during the summer vacation.

**Washington, D. C.**—Office of the Supervising Architect. —Sealed proposals will be received at this office until 3 o'clock p. m. July 18, for the low pressure steam heating apparatus complete in place, for the United States Post Office at Lawrence, Mass., in accordance with drawings and specifications.

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## BUSINESS OPENINGS

**Frederickstown, Ohio.**—The citizens have voted to issue $20,000 for waterworks. Frederickstown is located in Knox county.

**Benton, Pa.**—This town is having plans prepared for waterworks. Benton is located in Columbia county, on the Baltimore & Ohio railway, and has a population of about 500.

**Enid, Okla.**—The city council has decided to construct waterworks at a cost of about $85,000. Enid is located in Garfield county, on the C. & R. I. Ry., and has a population of about 4,500.

**Magnolia, Miss.**—The city council is having plans made for waterworks to cost about $25,000. Magnolia is located in Pike county, on the Illinois Central railroad, and has a population of 700.

**Waterloo, N. Y.**—The question of waterworks and sewerage system is under consideration. Waterloo is located on the Lehigh Valley railway, in Seneca county, and has about 4,500 inhabitants.

**Houghton, Mich.**—This city is contemplating the construction of a gravity waterworks system. Houghton has about 2,500 inhabitants and is located on the Portage river in Houghton county.

**Roseland, Neb.**—This village is having plans made for waterworks and a sewerage system. Roseland is located in Adams county, twelve miles southwest of Hastings, and has about 350 inhabitants.

**Aberdeen, Miss.**—It is reported that the citizens have voted to construct waterworks and a sewerage system. Aberdeen is located on the Illinois Central railroad, in Monroe county, and has 3,500 inhabitants.

**Salem, Ill.**—The citizens are contemplating the construction of waterworks at a cost of $28,000. This city is located on the Chicago & Eastern Illinois railway, in Marion county, and has about 1,600 inhabitants.

**North Platte, Neb.**—The citizens are contemplating the construction of waterworks to cost about $60,000. North Platte is located in Lincoln county, on the Union Pacific railway and the North Platte river. Population 3,200.

**Belle Plaine, Iowa.**—This city has voted to construct waterworks and a sewerage system to cost $30,000. Belle Plaine is located in Benton county, on the Chicago & North-Western railway, and has about 3,500 inhabitants.

**Winchester, Ky.**—The Winchester Waterworks Co. has been incorporated with a capital of $50,000. The incorporators are William Wheeler, of Concord, Mass.; C. F. Attersall and Edw. S. Jouett, of Winchester. This city is located in Carroll county, and has about 8,000 inhabitants.

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*We do not fill our reading columns with puffs and write-ups. Our subscribers pay for reading matter and they get it straight. But our advertising pages contain the cream of the trade's offerings and repay study. In writing advertisers please mention Domestic Engineering.*

## BUSINESS VENTURES

**Mexico, Mo.**—Edward Spring will open a plumbing shop here in the early part of July.

**Reading, Pa.**—Jacob Fries & Son have engaged in the plumbing business at 1440 Perkiomen.

**South Belchertown, Mass.**—D. E. Austin has opened a plumbing shop on South Main street.

**Youngstown, Ohio.**—Lafe Seaton and Lewis Price will soon open a plumbing establishment here.

**Norwalk, Conn.**—Fred S. Buttery has opened a plumbing establishment on West Washington street.

**Geneva, N. Y.**—N. Deslauriers and Arthur Chaput, both of this city, have opened a plumbing shop at 222 Remsen street.

**Salt Lake City, Utah.**—Frank Moyle and George Cummings have formed a partnership and opened a plumbing shop at 64 Main street.

**Springfield, Mass.**—Joseph P. Smith and Meyer Cohen have formed a partnership under the firm name of Smith & Cohen. They will conduct a plumbing business at 109 Main street.

**Chicago, Ill.**—Chicago City Sanitary Co. has been incorporated with a capital of $2,500 to conduct a plumbing business. The incorporators are A. M. Docter, Lewis Myers and Frank Schoenfeld.

---

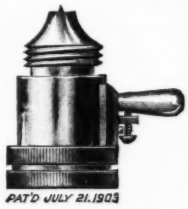
*Readers of Domestic Engineering are urged to examine the advertising pages of this paper. Enterprising manufacturers and jobbers are showing novelties for plumbing and heating men. There is no better way to keep abreast of the times than by reading our advertising pages. In writing advertisers please mention Domestic Engineering.*

We make over forty different shapes of stoppers, all made with a care and thoroughness unapproached by others. **Write us when next in market.**

**M'CULLOUGH-DALZELL CRUCIBLE CO.**
PITTSBURG. PA. -:- U. S. A.

## The Frederick Adjustable Check

**For Incandescent Gas Burners.**




Works equally well on Natural or Artificial Gas. Increases your light 25 per cent. and uses less gas. Can be used as a by-pass by adjusting small screw on side. Made to fit any style of burner.

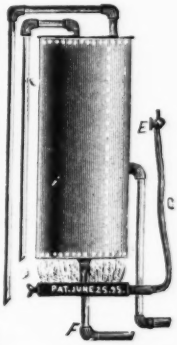
SEE THAT LEVER.

Just move the lever up or down and your light is adjusted.

A good Live Dea'er wanted in every town.

**Pittsburg Supply Co.**

**439-449 Water St. Pittsburg, Pa.**




## THE A. HELLER HEATER

The most Economical and Best Gas Water Heater ever put on the market.

MANUFACTURED BY

**J. P. B. SADTLER & CO.**

231 Park Ave., Baltimore, Md.

Cut shows heater under boiler.

## NICKEL PLATED TUBE FITTINGS

Tapped 28 Threads to the inch. We also make them to Slip or Solder.

SPEAKMAN SUPPLY AND PIPE CO.

WILMINGTON, DELAWARE.

New York Office:
Presbyterian Building,
5th Avenue
and
20th Street.

Telephone
3349 Gramercy.

FF

"Flagg" Malleable Fittings

"Flagg" Keystone Unions

THE STANDARD SOFT METAL SEAT UNION

*Readers of Domestic Engineering are urged to examine the advertising pages of this paper. Enterprising manu- and heating men. There is no better way to keep abreast of the times than by reading our advertising pages. In writing advertisers please mention Domestic Engineering.*

## NEW THINGS

**Now Made in Charcoal Iron.**—The Haxtun boilers (soft coal) for steam and hot water, are now being made of charcoal iron throughout. This is a new departure. They were formerly (and still are) made of steel, but for extra good service this charcoal iron is made up in connection with strictly charcoal iron pipe. The price of the boilers so made is very little more than steel. The makers are the Kewanee Boiler Co., of Kewanee, Ill., and a circular has been sent us announcing this new feature of their business.

**A New Laundry and Tank Heater.**—An entirely new laundry and tank heater is shown in the accompanying illustrations. It provides a certain, convenient and economical means of heating water for domestic purposes and

Fig. 1.

heating sad-irons at the same time. A large double griddle top is provided for such uses as such a heater is put to, and the water heating power is ample and well arranged. All parts are interchangeable, and they are made of superior grades of iron previously determined fit for the purpose. One illustration shows the exterior of the heater, another shows the heating surfaces for nine irons, also showing the inner ribs for standing the coal away from the side of the pot and securing good combustion; the third illustration shows the top with the griddles

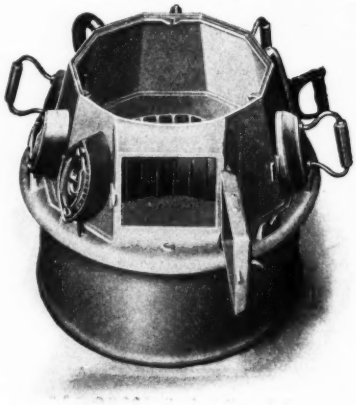


Fig. 2.

removed to show the baffle plates. It is extremely simple to connect, can be readily cleaned, and will be found

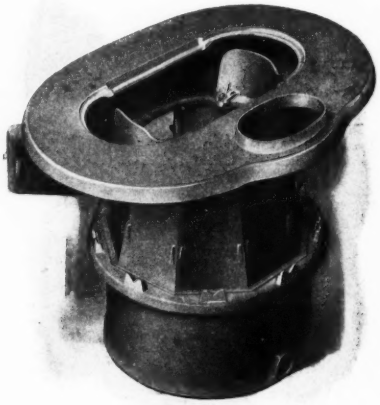
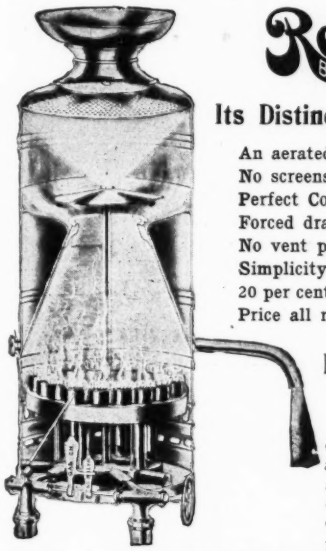


Fig. 3.

adapted to all fuels, although anthracite gives the best service. It is made in three sizes by the American Radiator Co., 282-284 Michigan avenue, Chicago, Ill.

When a boss knows what's right, insists on having things done right, is perfectly satisfied when they are done right, but resents having them done wrong, don't call him a hard boss.

J. J. RYAN & CO.
68-74 West Monroe Street, CHICAGO, ILLINOIS
MAKE "FAULTLESS" FULLER WORK
New York Representative: Thos. H. Hutchinson, 101 Beekman St.



Rapid BATH HEATER

**Its Distinctive Features**

**An aerated burner**
**No screens (of any kind)**
**Perfect Combustion**
**Forced draft**
**No vent pipe**
**Simplicity of Construction**
**20 per cent more efficiency**
**Price all right**

**List $25.00**

It's easy for every dealer to know all about these distinctive and valuable features of the "RAPID". Order sample, install it, see for yourself. You take no chances, EVERY ONE fully guaranteed—Send us your orders—Prices right—no delay in filling—Catalog and prices for the asking—write now.

**Rapid Heater Co., Limited**
**GRAND RAPIDS, MICH.**



# WORTH READING

Newark, N. J., April 22, 1904.

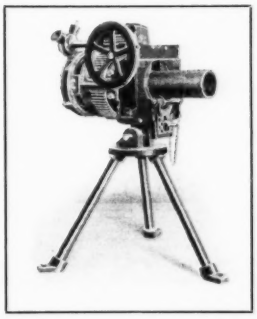
BORDEN COMPANY,
Warren, Ohio.

Gentlemen:—Enclosed herewith find our order for two "B" type (1-3 inch) Borden Pipe Threading Machines, which you will kindly ship us at once.

We have three of your "B" Machines now, and must say, that we are very much pleased with them, and they have saved us their cost in labor already.

Trusting that our order will receive your prompt attention, we remain,

Yours truly,
STORMS & CO.



**Send for Booklet B and prices.**

If at St. Louis, call and see our exhibit—Block 12 — Machinery Hall.

**BORDEN COMPANY**
**WARREN, OHIO**


## PATENTS

763,026. Apparatus for Treating Sewage. William J. Schweitzer, Whiteplains, N. Y.

George W. Schreiber, Lebanon, Pa., is installing Cooper's closets in a building in that city.—Adv.

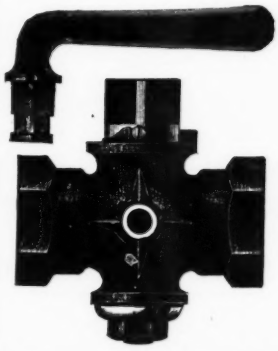
763,263. Faucet. George K. Cooke, Jamaica, N. Y.

L. C. Simpson, Camden, N. J., is placing Cooper's fixtures in some operations he has on hand.—Adv.

36,918. Lavatory. Francis J. Torrance, Allegheny, Pa.

763,318. Water-Filter. Frank A. North, Boston, Mass.

Loyal W. Dunlap, Springfield, Mass., is using Cooper's goods in some buildings in that city.—Adv.

**J. B. CAMPBELL BRASS WORKS.**

**ERIE, PA.**

**Have you Seen**

**THE CAMPBELL Patent**

**Stop and Waste Cock?**

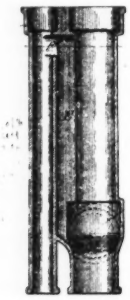
**It will pay you to write for Samples and Prices**

**They are RIGHT in every particular including the PRICE**

762,929. Pipe-Joint. John A. McCulloch, McKeesport, Pa., assignor to National Tube Co., Pittsburg, Pa., a corporation of New Jersey.

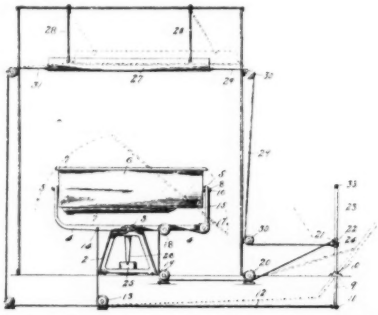
Louis Wanner, Jr., Philadelphia, is plumbing the residence of H. B. Hirsh, using Cooper's goods.—Adv.

759,050. Combined Fittings for Soil Pipes and Revent Pipes. Earl G. Watrous, Chicago, Ill.



Henry Jackel, Philadelphia, is placing Cooper's Nautilus closets, lavatories and bath in a residence in that city.—Adv.

759,351. Enameling Device. Edward L. Dawes, New Brighton, Pa., assignor to Standard Sanitary Mfg. Co., Pittsburg, Pa.



Forest City Plumbing Co., Ithaca, N. Y., are using Cooper's goods in some work they have on hand.—Adv.

762,980. Soil-Pipe Connection for Water-Closet Hoppers. Adolf F. H. Bode, Philadelphia, Pa.

Isaiah N. Eaton, Wilmington, Del., is using Cooper's Goods in some work he has on hand.—Adv.

763,054. Gas-Regulator. George T. Gamble, Grand Rapids, Mich.

Parquet & Bellinger are placing some of Cooper's fixtures in the residence of F. A. Hardy, Derry, N. H.—Adv.


# DOMESTIC ENGINEERING

**Plumbing, Heating, Lighting, Ventilating.**

**WEEKLY**

Office of publication: 58-64 N. Jefferson Street, Chicago.

JOHN K. ALLEN.....President and Treasurer
ELMER CRAWFORD.....General Manager
HERBERT T. SHERRIFF.....Editor
RASMUS HERLOV.....Associate Editor
FRANK P. TURNER.....Traveling Representative

**MECHANICAL DEPARTMENT**

F. C. Hill .....Superintendent

**CHICAGO**

58-64 N. Jefferson St. Telephone Monroe 816.
FRANK P. KEENEY.

**NEW YORK**

89-91 Centre St. Telephone Franklin 1680
E. W. BARNES.
E. DE FOREST WINSLOW.

**BOSTON**

41 Lincoln Street. Telephone Oxford 1251.
E. W. BARNES.

**PHILADELPHIA**

18-24 S. Seventh St. Telephone 21-41.
E. DE FOREST WINSLOW.

**SAN FRANCISCO, CAL.**

230 California St. Telephone Main 1042.
G. P. MANCHESTER. FRED J. GOBLE.

**DETROIT**

263 Grand River Ave. S. C. CRAWFORD.

**SUBSCRIPTION RATES**

One dollar a year; single copies, five cents.

**ADVERTISING**

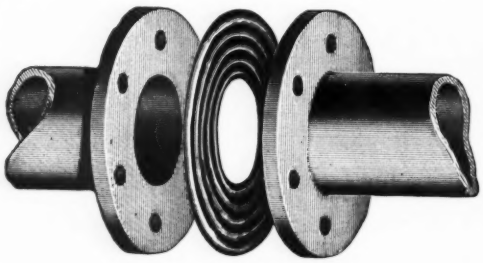
Copy and cuts for advertisements should be received by the first day of the week preceding publication. We cannot guarantee insertions or changes in advertisements if received later.

*Entered in the Postoffice in Chicago, Illinois, as mail matter of the second class, Dec. 12, 1901.*

Member of the Trade Press Association.
Member of the Manufacturers' Credit Co.

**JULY 2, 1904.**





**OUR PATENTED**

**MINERAL WOOL PIPE COVERING AND COPPER GASKETS**

**They Save Steam and Make Absolutely Tight Joints**

**UNITED STATES MINERAL WOOL CO.**

**Best and Cheapest Samples Free** **143 Liberty Street, NEW YORK**

# One Man?

Yes, one man and a **FORBES PATENT DIE STOCK** can cut off and thread a 12-inch pipe with ease; and smaller sizes proportionately easy. **SEND FOR OUR CATALOGUE.**

FORBES PATENT DIE STOCK
No. 78 Hand or Power. Range 2½ to 4 inches. R. H.

## The Curtis & Curtis Co.

13 Garden Street Bridgeport Conn.

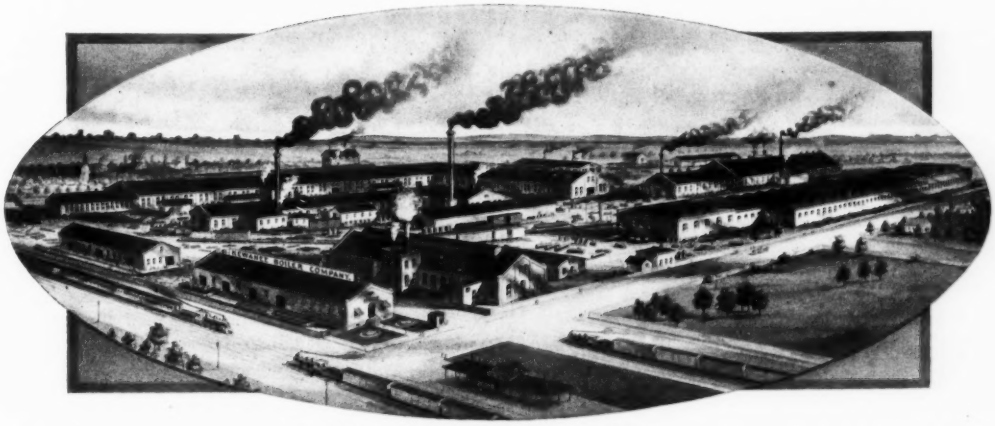
# AMERICAN BRASS WORKS

MANUFACTURERS OF

**LAVATORY and BATH Cocks, Traps, Legs, Supply Pipes, Wastes and Overflows, Combination Fixtures**

CINCINNATI, OHIO

# "The Home of the Firebox."



Send for Our Catalogue and Prices.

CHICAGO 167 E. Lake St.

## KEWANEE BOILER COMPANY

KEWANEE, ILL.

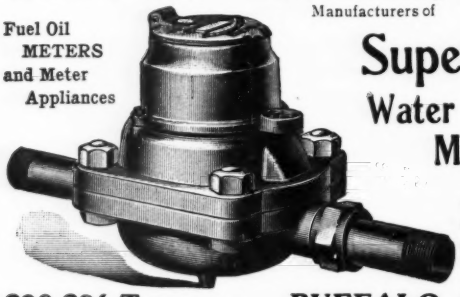
ST. LOUIS 1012 Chemical Bldg.

MENTION DOMESTIC ENGINEERING

**BUFFALO METER CO.**

Manufacturers of

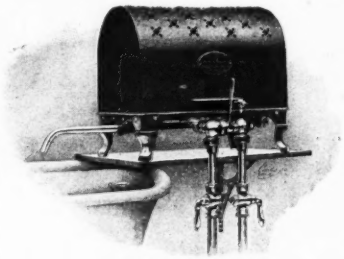
Fuel Oil METERS and Meter Appliances



**Superior Water Meters**

Write for CATALOG and PRICES

290-296 Terrace, BUFFALO, N. Y.



*The* **"ADAM"** Instantaneous **Water Heater**

Sold only to the trade

*Send for latest catalog*

**W. J. ADAM** JOLIET, ILL.

**SISSON INSERTABLE JOINT**

**Indispensable to Plumbers.**

A friend in need is a friend indeed.

**The S. I. J. for Soil Pipe.**

OLD METHOD: "ANY OLD WAY."

Sizes 2 to 6 inches. Light and Heavy. Makes a neat job and saves your patience.

This does the trick.

ASK YOUR JOBBERS FOR IT.

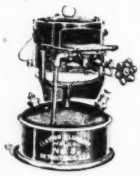
BEST METHOD "OUR WAY."

MANUFACTURED BY

**R. ESTABROOK'S SONS**

SOUTH BOSTON, MASSACHUSETTS

**Are you well Posted?**



No. 5 Fire Pot $4.50 net.

Do you know all about our line of Gasoline Fire Pots and Torches? *We make 60 kinds and all are good.* Some one style must be just what you need. Why not order it at once? *You run no risk as "Your money back if you are not pleased"* is our guarantee. Jobbers sell at factory price. Our catalog tells all and is free; it's worth dollars to you.

**Clayton & Lambert Mfg. Co.**

DETROIT, MICH., U.S.A.

John Maddock — Alexander H. Maddock
Thomas Maddock — William B Maddock

**John Maddock & Sons**

COALPORT, TRENTON, N. J

MANUFACTURERS OF

Steamship, Car Builders' and Plumbers' Earthenware. Sanitary Specialties of Every Description

**Perth Amboy Ceramic Company**

*Perth Amboy, N. J.*

*Manufacturers of*

***Solid Porcelain Sinks, Washtrays, etc.***

Price lists and trade discounts sent upon application.

S. P. STAMBACH — ROBERT LOVE

**Stambach & Love**

Plumbing Supplies and Sanitary Specialties

**50 and 52 N. Seventh St., PHILADELPHIA**

Open every business day 8 a.m. to 5 p.m. FREE

If you have anything you wish to show to the Building Trades, Architects, or the Public, place it in

**THE BUILDERS' EXCHANGE**

**PERMANENT EXHIBITION**

For Particulars write the Superintendent

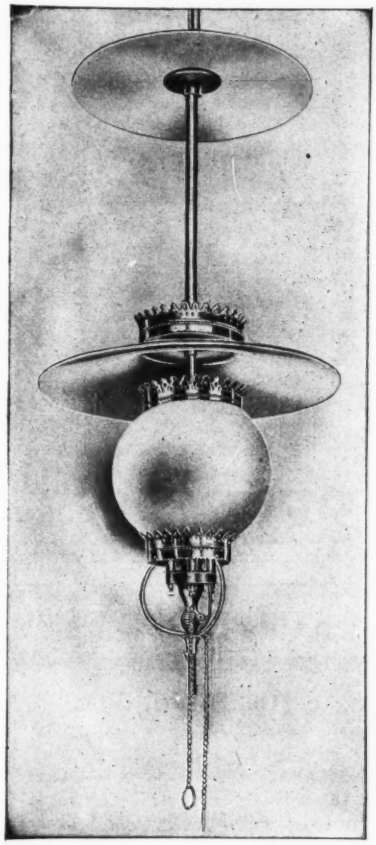
18 to 24 South 7th Street, Philadelphia, Pa.


**READ THE ADVERTISEMENTS**

The No. 24

## Eagle Gas Arc Lamp

**A Marvel of Production for the price. The Most Artistic Designed Lamp of the Chain Pull Pattern. Mechanical Parts Interchangeable.**



***The General Construction*** of this lamp is entirely different from any four light cluster on the market, the body of same being made of castings, leaves no joints dependent upon a few threads on light tubing and covered with solder to give strength for transportation.
***The Objectionable Plug Cock*** is superseded by a Rack and Pinion movement controlling a flat ground seated valve which insures a free movement at all times regardless of any conditions it may be subjected to.
***A Very High Efficiency*** is obtained owing to the Superheating Gas Chamber. A feature that is not only in theory but an actual fact and readily demonstrated by a test.
***The Unique Globe Holder Catch*** will be appreciated by those whose duty it may be to maintain, as it requires but the press of your finger to lower the globe, while the replacing is simply to raise it. No set screw to bother with, hence another danger of breaking mantles removed.

PRICE ON APPLICATION

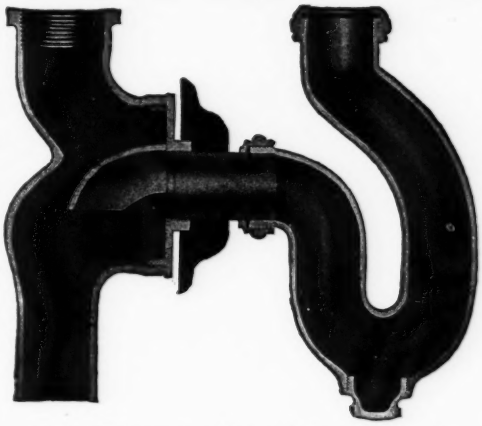
**THE S. BERNSTEIN COMPANY**

Manufacturers of the **EAGLE** Instantaneous Water Heaters, Incandescent Gas Burners, Gas Arc Lamps

**126 Sixth Ave. cor. Tenth St., New York**



## A New Vent & Clean Out

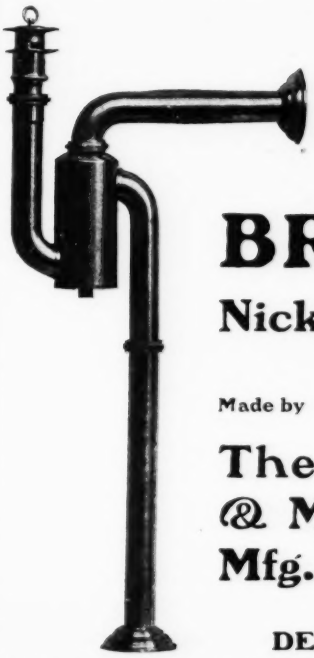


THE "Niagara" guides water down into waste pipe, absolutely preventing clogging of vent. You can get at vent pipe to plug when forcing waste. Guide is detachable and cannot be put on wrong. Look at the cut. Ask for New Catalogue of New Goods. No "has beens" in it.

**The Ohio Brass & Iron Mfg. Co.**
**Cleveland, Ohio.**



## The "BOSS" Trap



**BRASS**
**Nickel Plated**

Made by

**The Ireland & Matthews Mfg. Co.**

DETROIT, MICH.

PATENTED.

# The Watrous "Perfection" Closet Screw Connection

FIG. A—216. THE ALTON.

Our Extra Heavy Pattern Syphon Jet Closet (concealed Jet) Premier Seat attached, and fitted with the Lever Action Watrous "Aquameter."

We protect all users of our goods against Infringement suits.

***Write for Circulars***

Patent Applied For.

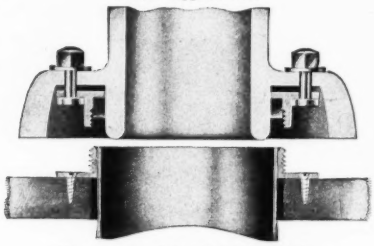


FIG. A—218. READY TO ATTACH.

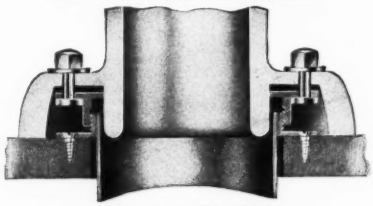


FIG A—218. ATTACHED.

**Nos. 227-237 Washington St.** **Federal Company** **CHICAGO, Illinois.**

# Never-Split Seats

are true to their name. They NEVER SPLIT because each joint it secured by a bolt let in at the ends, with nuts inserted from the bottom, together with two wood

dowels. No amount of heat or dampness subjected in ordinary use will cause the joints to part. This seat is worthy of your investigation. Write to-day for catalogue and prices.

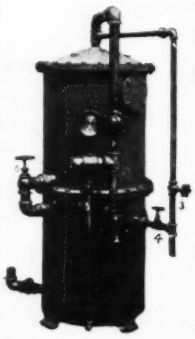
**NEVER-SPLIT SEAT CO.**
**EVANSVILLE, INDIANA.**

# Queen City Brass & Iron Works

**Cincinnati, Ohio**

Justly celebrated for their GROUND KEY AND COMPRESSION WORK AND STEAM BRASS GOODS. Dealers dissatisfied with goods or conditions are cordially urged to write to us.

***We cure bad cases of dissatisfaction***



**THE IMPROVED DOUBLE**

# Paddock Water Filter

Is designed to be placed in the basement to filter the entire supply for any size building, Steam Boilers, etc.

Manufactured by

**The Paddock Water Filter Company**

314 POTOMAC AVE., BUFFALO, N.Y.

BARRETT SPECIALTIES

TIDEWATER AND SEWER TRAPS, O. D. BACK WATER VALVES, CLEANOUTS, GREASE TRAPS BARRETT SPECIAL FITTINGS. BRASS RAILING, IN ANY FINISH : : : : : : : : : : :

JAMES BARRETT MFG. CO.

Manufacturers and Wholesale Dealers in Plumbers' Supplies

48-50 Pearl St. BOSTON 209-11 Franklin St.

SOLID

WATER

Patent applied for.

"Cooper" Test Plugs and Cleanouts

Why you should use them

A useful tool.
They do the work.
Are up to date.

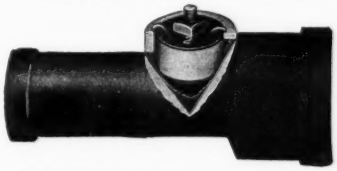
You won't get wet.
Stand 160 lbs. pressure.
Need no braces.

Nothing to wear out.
Cheaper in price only.
Give them a trial.

ASK YOUR JOBBER FOR THEM.

Send for circular to

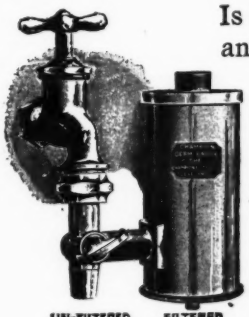
Sizes 1¼ to 12 inches inclusive.



Patent applied for.

C. W. McDermott, 144 Harrison Ave., Boston, Mass.

The Champion Water Filter

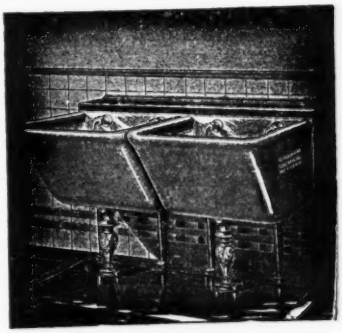



Is the only perfect and complete one !

Simple, easily cleaned and operated. Fits any faucet. Catalogue and prices of complete line upon application.

The Champion Safety Lock Co.
GENEVA, OHIO.

GOOD GOODS
ONLY AT FACTORY PRICES

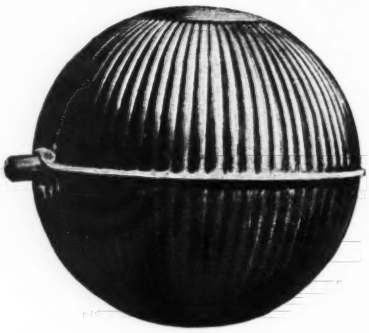


Good buyers want to know what that means. They may learn by asking for a catalogue of our imperishable Sanitary Laundry Trays and Sinks.

CHAS. GRAHAM CHEMICAL POTTERY WORKS

986-1018 Metropolitan Avenue, Brooklyn, New York.

# BALLS



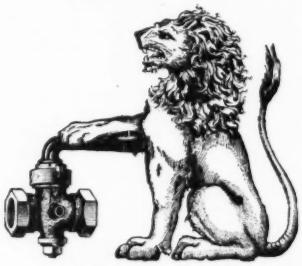
Not of the rubber or base ball variety but made from copper or zinc in all sizes and styles. Also Flush and Supply Pipes, connected Wastes and Overflows, Traps; Hinges, Ells and Offsets for low down tanks, Brass or Bronze Castings, Stampings from sheet steel, copper and brass. Quotations made on B. P. or samples.

**DIAMOND STAMPED WARE CO.**
DETROIT, MICHIGAN.

## The Monarch Brass Co.

**High Class Cocks & Bibbs, Bower Traps**

THE
MONARCH BRASS
COMPANY
CLEVELAND, OHIO



"Monarch"

**Watch our space in Domestic Engineering**

**CLEVELAND OHIO**

Manufactured by

## OTTO BERNZ

PAT. PUMP FURNACE

**All Jobbers Carry**
**Our Goods and Sell**
**at Factory Prices**

CUT GLASS PULL

PAT. SHAVE HOOK

**NEWARK, N. J.**


*We do not fill our reading columns with puffs and write-ups. Our subscribers pay for reading matter and they get it straight. But our advertising pages contain the cream of the trade's offerings and repay study. In writing advertisers please mention Domestic Engineering.*


## Winsted Cabinet Company

WINSTED, CONN.
Manufacturers of
**Oak Seats and Low Down Tanks** for the Trade

Seat with back block attachment or post hinge. Made after your own template. Tanks with pull or push button fittings. Lowest prices and best goods in U. S. Write for prices. Catalog on request.

Compression
Doherty
and
Boston

Basin
Cocks
and
Bibbs

All
Styles

## The EMPIRE BRASS MFG. CO.

Manufacturers of

**Plumbers' High Grade Brass Goods**

NO. 125 VIADUCT

BRASS TRAPS—All kinds and sizes.

CLEVELAND Write for Catalogue B, 1904 OHIO

Lavatory
Legs
Lavatory
Supplies
Bathcock
Supplies
Fuller
Bath Cocks

SPECIAL
BRASS
WORK
TO ORDER


**READ THE ADVERTISEMENTS**

# "Standard"

## Porcelain Enameled Lavatory

The "Copley" has been a most phenomenal success from the day that we made the first pattern. It possesses all the art, skill and quality that it is possible to put in any one fixture.

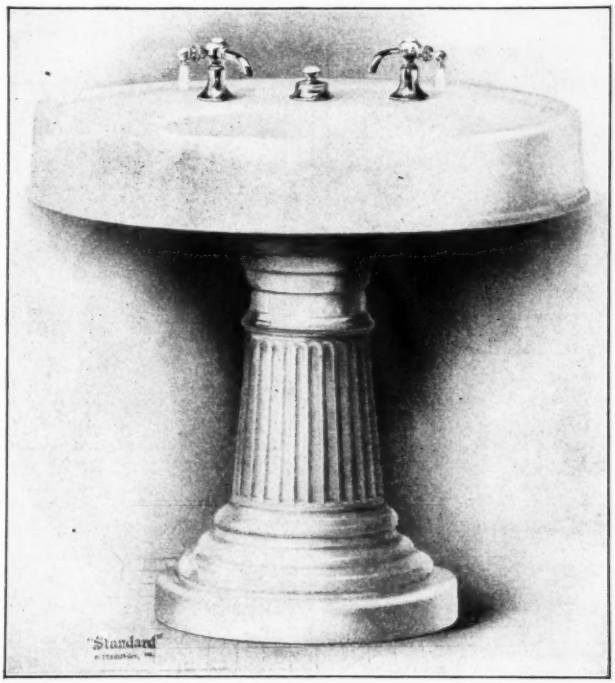



PLATE P 500
(Plate 1035 G in Catalogue G.)

**"Standard"** Porcelain Enameled "Copley" Design Lavatory, with Slab, Bowl and Apron all in one piece, Porcelain Enameled all over Pedestal, Nickel-plated "Torrance" Faucets with China Handles and Indexes, Nickel-plated Imperial Waste with China Indexes, Unique Trap and Supply Pipes.

DIMENSIONS

| | | | |
|---|---|---|---|
| Slab | 18 x 27 inches | Bowl | 11 x 15 inches |
| Slab | 22 x 33 inches | Bowl | 13 x 18 inches |

| Sizes | 18 x 27" | 22 x 33" |
|---|---|---|
| Plate P 500 | $44.00 | $49.50 |
| Plate P 500 A, less Faucets, Supply Pipes and Trap | 30.50 | 36.00 |

The "Copley" is to be seen in the showroom of leading plumbers in nearly every city. Its extreme beauty and chaste pattern find a ready sale for it wherever it is shown. It is especially recommended for the most particular trade. The price is not high in comparison with the value offered.

It is furnished on Porcelain Enameled Pedestal, Porcelain Enameled Legs, Nickel-plated Brass Legs and on Porcelain Enameled Brackets.

(Illustration, descriptions, dimensions and prices taken from new Catalogue "P."

## Standard Sanitary Mfg. Co.

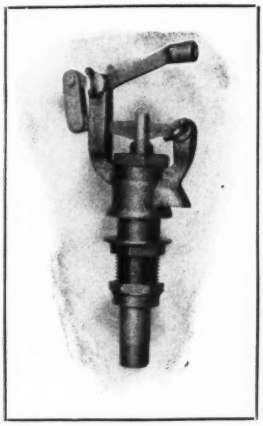
**Dept. 2, Pittsburg, U. S. A.**

A ballcock that works perfectly under all conditions is a source of great satisfaction to the plumber.

Our No. 644 shown herewith is one of this kind.

Works perfectly under all pressures, high or low.

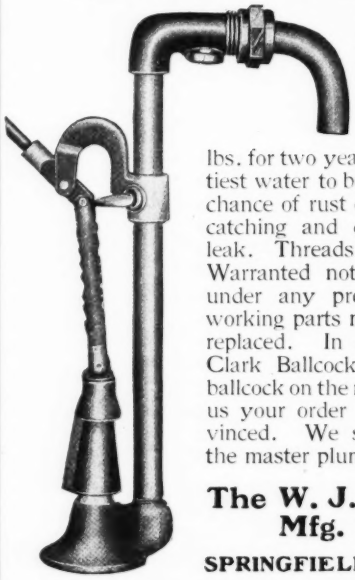
Made in four styles
No. 644-A. Bottom Supply.
No. 644-B. Top supply straight shank.
No. 644-C. Top supply Right angle shank.
No. 644-D. Low Down.



Send for our Catalogue of Other Fittings.

The Frost Mfg. Co., Kenosha, Wis.

THE BALLCOCK
That Beats the World



Has no packings to wear out and leak. Stood high water pressures of 125 lbs. for two years in the dirttiest water to be found. No chance of rust or lead chips catching and causing it to leak. Threads cut standard. Warranted not to hammer under any pressure. The working parts may be easily replaced. In a word The Clark Ballcock is the best ballcock on the market Send us your order and be convinced. We sell direct to the master plumber.

The W. J. Hyland Mfg. Co.
SPRINGFIELD, MASS.

Est. 1869
Inc. 1898

HAYS

The Goods That Please

Water Works', Gas Companies' and Plumbers' Goods.

Original McNamara Hydrants and Street Washers.

Hays Manufacturing Co.
ERIE, PA.

Clean and Flush Your Drains

Wade Accessible Straight-Way Clean-Out House Drain Flushing Back Water Gate Valve.

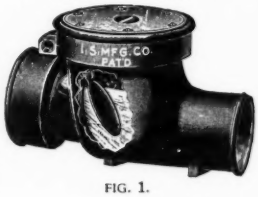



FIG. 1.

Fig. 1 shows direct pressure water washing out and cleaning House Drain Back Water Gate Valve, the interior of fitting and the drain.

Fig. 2 shows Wade Accessible Straight-Way Clean-Out House Drain Back Water Gate Valve and Fitting installed, showing flushing pipe connected to fitting and having iron extension manhole, which extends from the drain in the ground to the surface of cellar floor, and provided with a water and gas tight metal cover, bolted down to a gasket and easily removed for inspection without disturbing floors or concrete. Pressure water should always be connected to flush pipe on fitting to clean the back water gate valve and interior of drain.

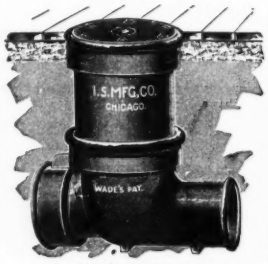



FIG. 2 INSTALLED

The Pipe Hub on Fitting is for either Vitrified Clay Pipe, Standard or Extra Heavy Iron Pipe.

Iron Sanitary Mfg. Co.
52 and 54 Dearborn Street,
CHICAGO.

# Reasons Why Plumbers Should Buy Our Supplies

## COLONIAL COMBINATION

Vitreous syphon jet shaped seat and lid, Colonial tank 10 oz. copper, compound lever ball cock. Write for Prices.

## GOODS SHIPPED PROMPTLY

WHEN you are in a hurry it is most aggravating to have your orders delayed by small stocks, mixed invoices or unaccommodating shippers. The non-arrival of goods, which you have every reason to expect upon a certain date, often means a considerable pecuniary loss to you. None of these troubles will happen when you do business with us. We carry an enormous stock of goods and can ship your order promptly, whether a few items or a carload. All orders shipped promptly. Every shipment is examined and checked by three different parties before being sent forward. We realize that time is as valuable to you as it is to us, and we make a special effort to be prompt and correct. Your assurance of satisfaction with us simply requires the telling of what you want.

***"WE HAVE IT."***

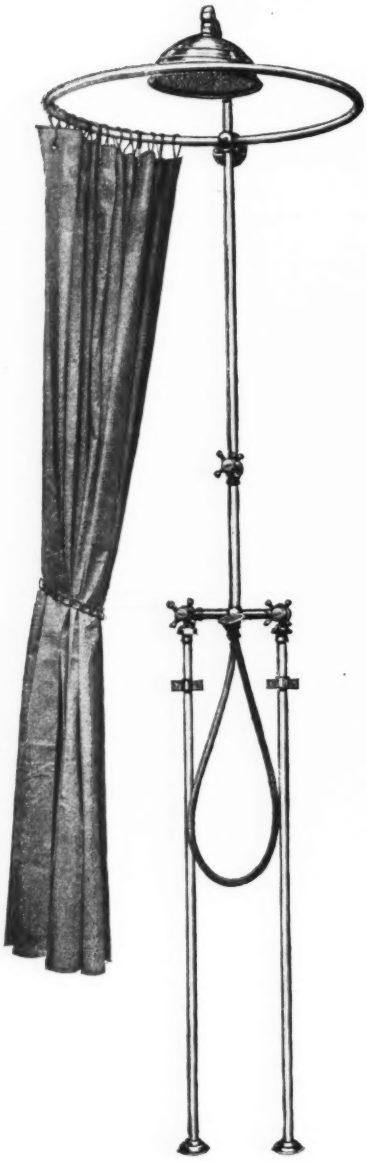
# FLECK BROS. COMPANY

PHILADELPHIA

Office and Store,
44-50 N. 5th Street.

Lead Works and Warehouse,
1641-45 American Street.

# The "Mermaid" Shower Fixture



is finding a large sale because it is better value for the money than any other shower on the market.

## Some of the Points of Superiority are :

Heavy Brass Tubing, Well Nickeled.

24½ inch Curtain Ring.

8½ inch Tubular Shower Head.

Fancy Wheel Handles with China Indexes on Valves.

Is furnished with Check Valves.

**WRITE US TO-DAY FOR QUOTATIONS.**

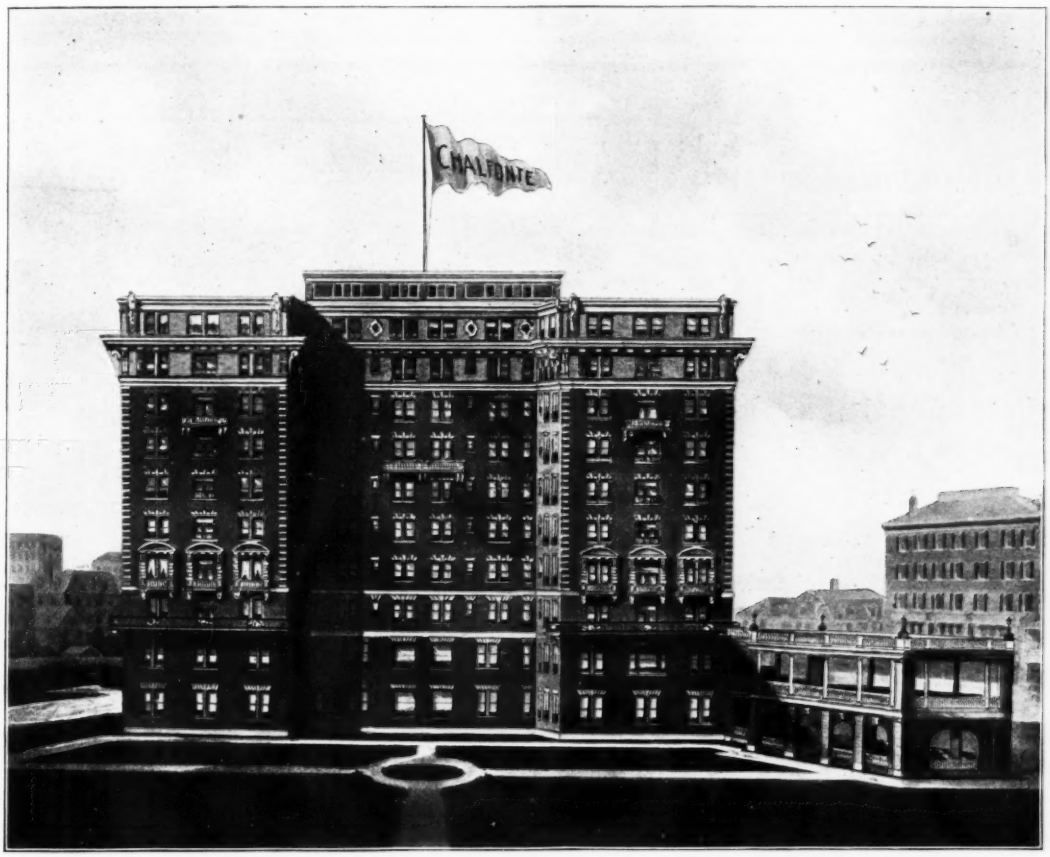
We will save you money. Order a sample and if it is not satisfactory, return at our expense.

## MITCHELL & VAN METER COMPANY, LINFIELD, PA.

We also manufacture the "Cascade" Portable Shower Fixture.

## *The New Fire-Proof Hotel, "CHALFONTE"*

**AT ATLANTIC CITY, N. J.**




Is being equipped throughout with Haines, Jones & Cadbury Co.'s plumbing fixtures. These goods were selected on their merits and after careful deliberation. The hotel contains more than one hundred bath rooms, each fitted with "Hajoca" closets with Flushometer, "Hajoca" enameled lavatories and "Liberty" baths, with "Hajoca" fresh and salt combination supply fixtures.

*Hajoca goods are right*

# HAINES, JONES & CADBURY CO.

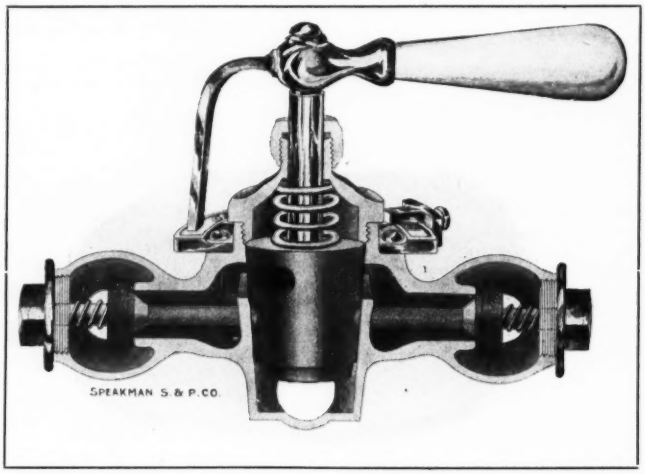
***Plumbers' Supplies and Sanitary Specialties***

**Iron Foundry: Norristown, Pa.** **1130 to 1144 Ridge Ave., Philadelphia, Pa.**

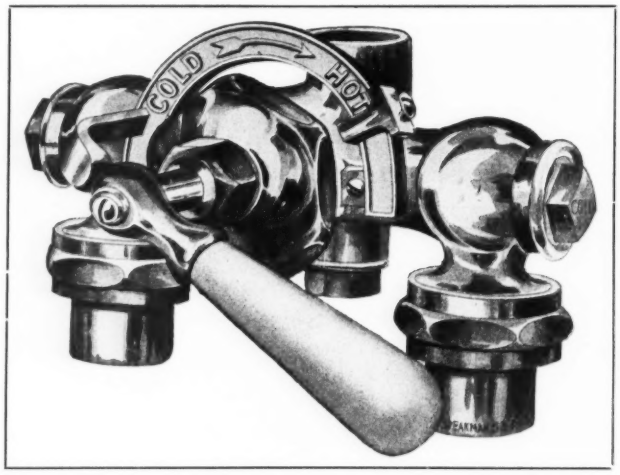
CHALFONTE opens July 2, 1904. For full particulars address The Leeds Co. Atlantic City, N. J.

# Speakman's Non-Scalding Regulating Valve for Showers (Patented)

A perfect device for controlling accurately the temperature of water in connection with showers.




This is not an experiment! We have gotten beyond that stage in shower valve making. We have many of these valves in use in large bathing establishments. The owners tell us the showers equipped with THE SPEAKMAN "NON-SCALDING" VALVES are the best they have seen or used. We are prepared to furnish any of our styles of showers equipped with the valves, and will gladly furnish further information if you will write us.




## SPEAKMAN SUPPLY & PIPE CO.

New York Office:
Presbyterian Building,
5th Avenue and 20th St.

WILMINGTON, DEL.

Telephone,
No. 3349 Gramercy.

# NELSON SEPTIC TANK
## Sewage Disposal System

THE progressive members of the plumbing trade all over the country have long since found out that it was necessary to keep in touch with all of the improvements, which are made from time to time, in sanitary appliances, in order to secure a good profit to themselves by being in advance of their competitors in their knowledge of business.—One of the great successes of the past year has been the **SEPTIC TANK SEWAGE DISPOSAL SYSTEM** put upon the market by the

## N. O. NELSON MFG. CO., of St. Louis

This firm has always endeavored to lead in various lines which they have manufactured in the past, and there is no doubt but they are well in advance on the new Sewage Disposal System which is just becoming of interest to the trade. They have perfected their system to such an extent that they guarantee absolutely the successful results. They have installed upwards of fifty of their Systems during the past season without a single complaint. This is really a great record, and every plumber should have their booklet describing their System of Sewage Disposal.—At present they are completing Septic Tanks for a public school, for the U. S. Government, and for a bank building.

---

**This is No. 2.**
Height 36 inches.
Diameter 12 "
Shipping weight 80 pounds.
Net weight 50 lbs.
The products of combustion are entirely separate from the water.
Entire water surfaces are tinned.
**Price $35.00.**

# HOT WATER
## FOR BATHROOM AND KITCHEN

is most easily, quickly and economically supplied by a

## Humphrey Crescent
## Instantaneous Water Heater.

**Prices range from $20 to $45.** **Every Heater GUARANTEED.**

Every progressive PLUMBER should handle them. Send today for catalogue and discounts, to

## HUMPHREY CO.
**Kalamazoo, Mich.**

The only manufacturers in the World of a COMPLETE LINE OF INSTANTANEOUS WATER HEATERS.

Another New Addition to our "High Grade" Line

# "PARAGON"

PATENT

# GROUND KEY WORK

Full Waterway

Absolutely Dustproof

Grinding the Best

Fully Guaranteed

Patented February 7th, 1899. Other Patents Pending.

Weight Exceeded By None

The Very Best of Metal

New Features Adding Greatly To Strength

Tested to 200 Lbs.

As will be observed, the manner of fitting the cap on the body instead of the plug is a new feature. This insures greater bearing surface, consequently much more strength. Our cap is absolutely dust-proof. No open holes or slots being necessary.

## OUR GUARANTEE

The trade knows our reputation as mauufacturers of "High Grade" goods. We can't afford to put a new article on the market that is inferior. We know our PATENT "PARAGON" GROUND KEY WORK has advantages over other makes, and possesses none of their defects, and it is with the greatest confidence that we introduce this new line to the trade, guaranteeing every piece of goods to be strictly first-class in every respect.

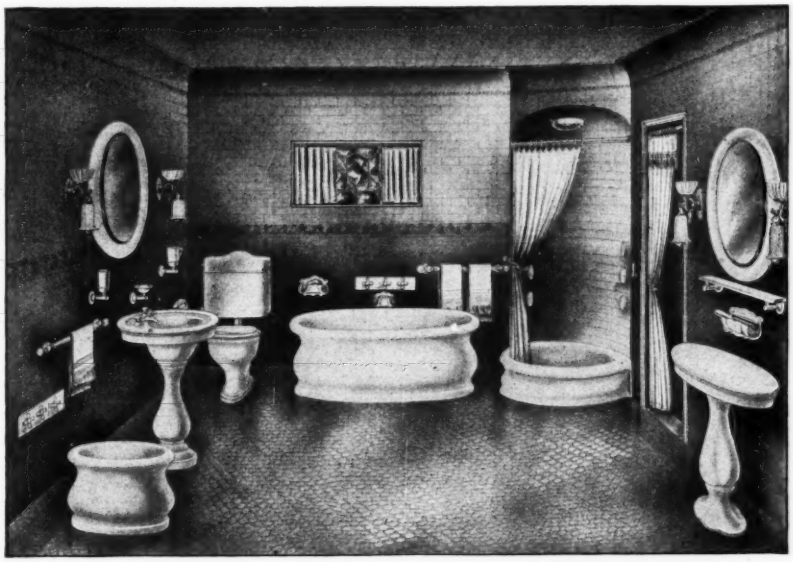
# THE SANITARY COMPANY

Manufacturers of "Paragon" Plumbers' Brass Goods

1-9 WATER ST. CLEVELAND, OHIO

# Trenton Potteries Co.

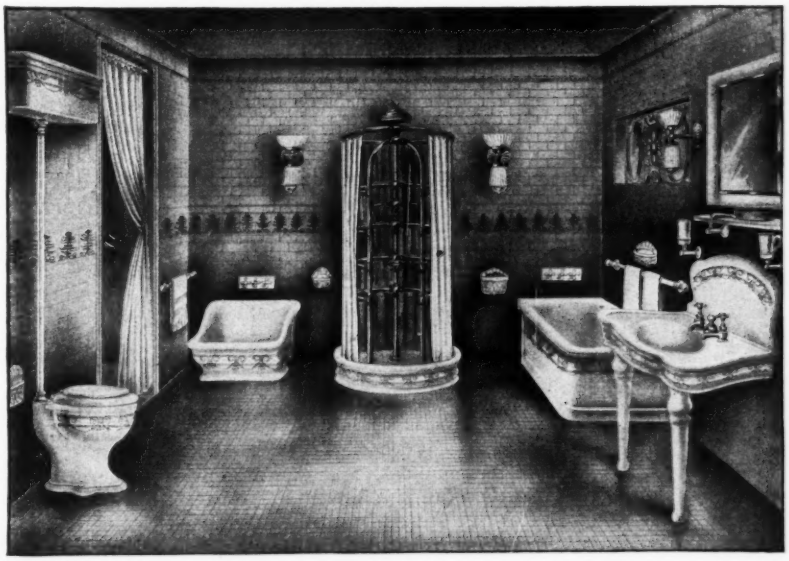
## TRENTON, N. J.



Complete Bath Room No. 1. all white porcelain, showing no metal fixtures.

The Largest Manufacturers of Sanitary Earthenware in the World.

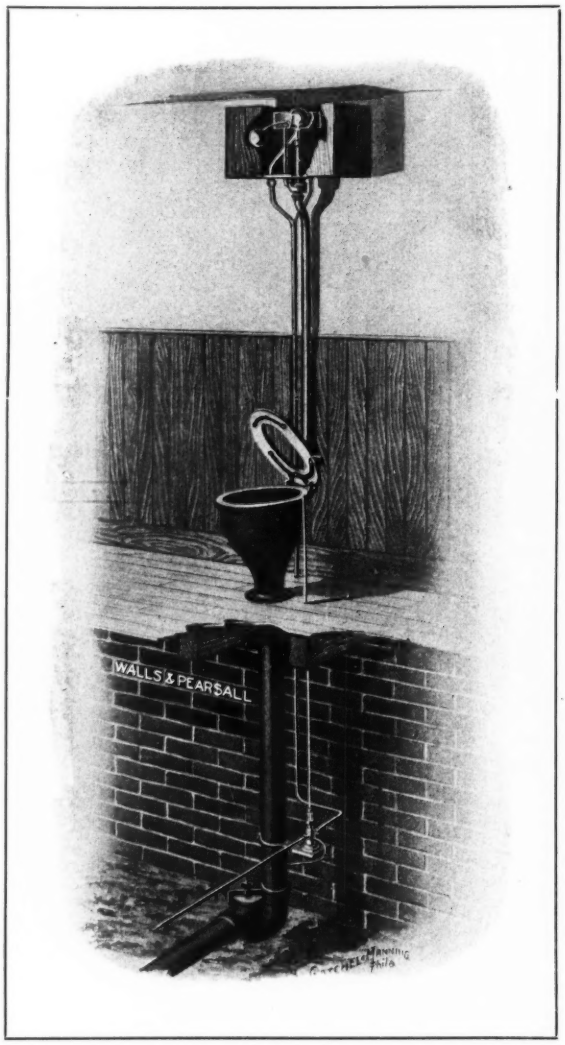
When you visit the Louisiana Purchase Exposition at St. Louis, you are invited particularly to visit our exhibit, which is located in Section 2-B, Manufactures' Building. The accompanying illustration of two bath rooms shown is only a small part of this exhibit.



Complete Bath Room No. 2, finished in white and gold, with metal fixtures in gold.

# The W. & P. Anti-Freezing Closet

## FILLS A LONG FELT WANT




We furnish you a closet outfit with an automatic tank, which does all we claim for it. The tank is strongly constructed of plain wood and lined with heavy copper, all the fittings are adjusted to work smoothly and without noise. The connections on tank and hopper are iron pipe size thread, and in addition we desire to call your especial attention to the fact that there are no washers used inside of tank.

There is no test like the test of actual use and in regard to this we can say that our outfits are now in operation from Portland, Maine, to Albuquerque, New Mexico.

One of the first installed was placed in a thin board out-house where the cold had free access, and yet today is and has been working smoothly and freely as the day it was put in.

Below are some points to remember:—

1. **It gives a thorough flush after use.**
2. **It gives a small flush before use in order to dampen hopper.**
3. **Has no washers in tank.**
4. **Is always automatic.**
5. **Will not get out of order readily.**
6. **Tank is lined with heavy copper.**
7. **It is no experiment, as our outfit has long been on the market and in actual use in difficult situations.**
8. **Recommended by expert plumbers.**

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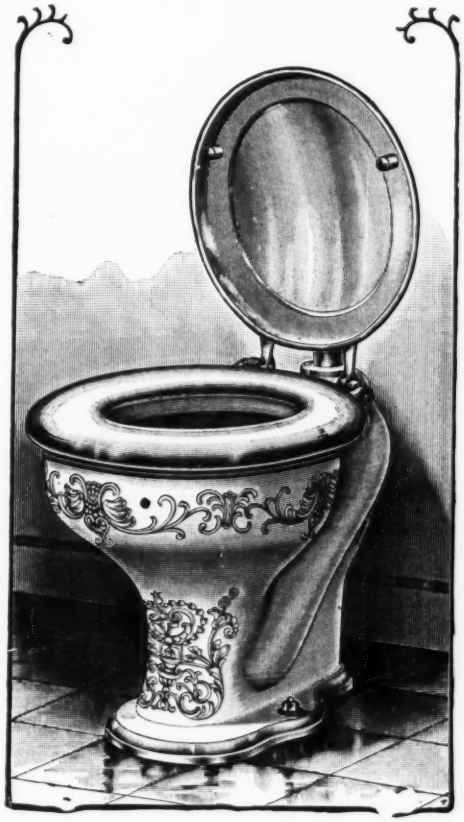
# Hygienic Seat

The Latest Best and Only Sanitary Seat on the Market



The Proper Seat to Use in All Public and Private Buildings

The seat and cover are each single pieces of steel stamped under heavy pressure into proper shape, and connected by malleable hinges which are riveted to both seat and cover. These seats are enameled in white making them marvels of beauty.

The under surface of the Hygienic Seat is concave, making the inner edge form a drip so that any accumulated moisture drops into the bowl and prevents the formation of the black and filthy surface usually found on the under surface of wood seats. One of the first impressions conveyed to the mind when this seat is presented is that it must be cold and disagreeable. Practical tests, however, have demonstrated beyond a doubt that in this respect they are in no wise different from wood seats. It is perfectly hygienic as its name implies, because it is absolutely moisture proof. Being made of steel and coated with a water-proof white enamel baked on it, it is non-absorbent. It will not split and it has no creases and corners that cannot be wiped off easily the same as earthenware. The enamel is not injured by the washing or scrubbing that removes the varnish from the wood seat

Orders filled promptly. Prices and further particulars on application.

## THE HYGIENIC SEAT COMPANY

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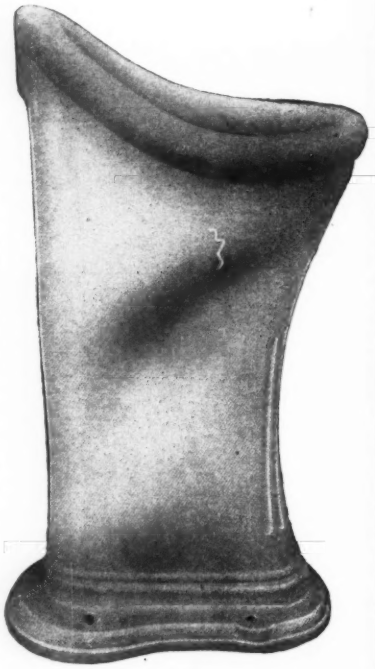

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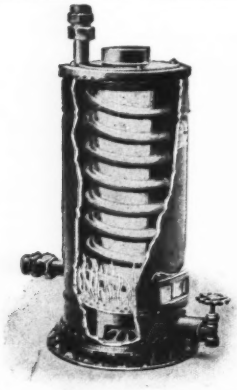

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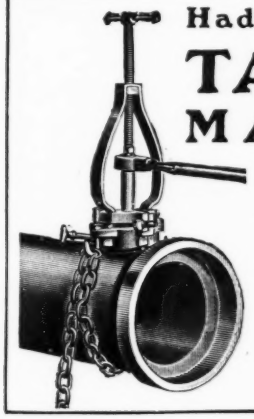

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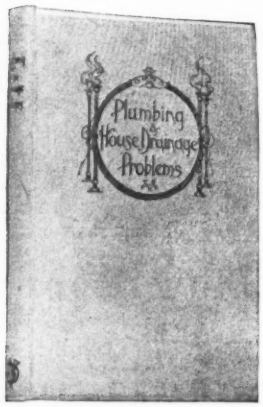


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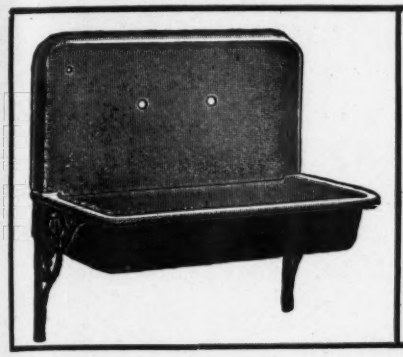

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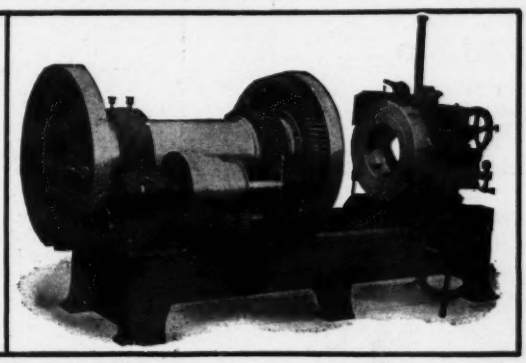

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